



# Handwriting Examination Test No. 15-523/524 Summary Report

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This test was sent to 238 participants. Each sample set contained a photograph of a standardized test honor code agreement (Q1) and photographs of known writings from two individuals. Participants were requested to examine these items and report their findings. Data were returned from 207 participants, 48 for the 15-523 DVD test and 159 for the 15-524 photo test (87% response rate) 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

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Each sample set contained a photograph of a questioned honor code agreement (Q1) and six photographs of known writings, which included course-of-business writings and dictated exemplars provided by Maggie Burke (K1) and Bonnie Craig (K2). Participants were asked to determine which, if any, of the handprinted text and/or signature on the agreement were produced by either of the two individuals.

## SAMPLE PREPARATION-

The handprinted text and signature on the Q1 agreement were both produced by the K2 writer, Bonnie Craig. During production of dictated writing, both writers were instructed on capitalization, punctuation, and general formatting in order to maintain uniformity of appearance.

The questioned Q1 document was selected from several versions created by dictated writing.

The writer of K1 is female and right-handed. The writer of K2 is also female and right-handed.

**SAMPLE ASSEMBLY:** Once predistribution results were obtained, all sample packs were prepared. For each sample pack, the seven photographs were packaged into a pre-labeled manila envelope, sealed with evidence tape, and initialed with "CTS". All DVDs were produced and placed into cases. QC checks were performed on both media.

## VERIFICATION-

Predistribution testing confirmed the manufacturer's expected results. All four predistribution laboratories stated that the Q1 text and signature were produced by the K2 writer and were not produced by the K1 writer.

## **Summary Comments**

This test was designed to provide participants with a handprinted text and signature identification challenge involving a questioned standardized test honor code agreement. Each sample set contained a photograph of the honor code agreement (Q1) and photographs of known writings provided by student Maggie Burke (K1) and fellow student Bonnie Craig (K2), including both course of business writings and dictated exemplars. Participants were requested to determine which, if any, of the handprinted text and/or signature in the agreement was produced by either of the two individuals. The K2 writer produced the handprinted text and signature in Q1 (Refer to Manufacturer's Information for preparation details).

For Question 1 (Table 1a), "Which, if either, of the known writers wrote the questioned writing (excluding the signature) on the honor code agreement?", all of the 207 participants (100%) identified the K2 writer (reported "A" or "B") as the writer of the handprinted text in Q1. Of those that identified the K2 writer, a majority of participants (201) also eliminated the K1 writer (reported "D" or "E"). The remaining six participants gave no response for the K1 writer.

For Question 2 (Table 1b), "Which, if either, of the known writers wrote the questioned signature on the honor code agreement?", 206 of the 207 participants (99.5%) identified the K2 writer (reported "A" or "B") as the writer of the signature in Q1. Of those that identified the K2 writer, the majority of participants (198) also eliminated the K1 writer (reported "D" or "E"). The other eight participants responded as follows regarding K1: one could not identify or eliminate the K1 writer (reported "C"), one identified both K1 and K2 as writers of the signature on the Q1 document (this appears to be an error, as the written conclusions do not match this observation), and six gave no response for the K1 writer. The remaining one participant could not identify or eliminate K2 as the writer of the signature (reported "C"), but eliminated K1 as the writer.

# Examination Results

*Which, if either, of the known writers wrote the questioned writing (excluding the signature) on the honor code agreement?*

TABLE 1a- Handwriting on Q1

WebCode-Test	Handwriting on Q1		WebCode-Test	Handwriting on Q1	
	K1	K2		K1	K2
23DU2J-524	E	A	6BDAD9-523	E	A
26K6Z9-523	E	A	6FMZPA-524	E	A
27XLB2-524	E	A	6HC3FZ-524	E	A
2AXP9F-524	E	A	6QQVK6-524	E	A
2FFCND-524	E	A	6WXD4R-524	E	A
2HRV62-524	D	A	74BQK2-524	E	A
2JH2GL-524	E	A	7QATYQ-524	E	A
2UX3NE-524	E	A	7VGJYB-523	E	A
34LF36-524	E	A	8BN7JP-523	D	B
34QEUU-524	E	A	8H96CH-524	E	A
36HJ38-524	E	A	8J79AZ-523	E	A
38M3B2-524	E	A	8LCVM6-523	E	A
3B4PKZ-524	D	A	8TQNUU-524	E	A
3KUBQX-524	E	A	8YDED4-524	E	A
3LN2WC-523	E	A	93U9FM-524	E	A
3QTWLE-524	E	A	9ATLRJ-524	E	A
3V98TG-524	E	A	9P69TZ-524	E	A
438497-524	E	A	9TKQXN-524	E	A
482VHN-524	E	A	A2YT26-524	E	A
4JYRMB-524	E	A	A3LP6N-524	E	A
4K6CAC-524	D	B	A6ZWTR-524	E	A
4MPHFZ-524		A	AA3YM7-523		A
68HMQZ-523	E	A	AA4U8X-524	E	A

TABLE 1a- Handwriting on Q1

WebCode-Test	Handwriting on Q1		WebCode-Test	Handwriting on Q1	
	K1	K2		K1	K2
ABLYRG-524	E	A	EHJE3W-524	E	A
ACCABM-524	E	A	EHLZZX-524	E	A
AJVF79-523	E	A	EKUAUF-524	E	A
AMWLMZ-523	E	A	ELPX96-524	E	A
ATYMTV-524	E	B	ER7FKR-524	E	A
AU8WKT-523	E	A	ERBUTL-524	E	A
AYMD84-524	E	A	ERUJFM-524	E	A
AZ63VP-523	E	A	EUJ36Q-523	E	A
BNJKD3-523	E	A	EZGLCN-523	E	A
BTX3QD-524	E	A	F2F3B7-524	E	A
C899DW-524	E	A	F6A6RR-524	E	A
CDXR9Z-524		A	F6R8M8-524	E	A
CFHJK3-523	E	A	F7MTDC-524	E	A
CPVLUA-524	E	A	FA8HXP-524	E	A
CQ7J8R-524	D	A	FAKAQ7-524	E	A
CRZ8N2-523	E.	A.	FANP6T-524	E	A
CU32ER-523	E	A	FFRPBN-524	E	A
CVYLBR-524	D	A	FJCK9E-524	E	A
D94Y8H-524	E	A	FQEUBZ-524	E	A
DGHU4C-524	E	A	GBWR9X-523	E	A
DKT6UL-523		A	GBX478-524	E	A
DNDW6N-524	E	A	GG2ZVY-523	E	A
E7AUPV-523	E	A	GG3VGP-524	E	A
E9YXN4-524	E	A	GM7VKZ-524	E	A
EGRAUH-524	D	B	GMQJV8-524	E	A

TABLE 1a- Handwriting on Q1

WebCode-Test	Handwriting on Q1		WebCode-Test	Handwriting on Q1	
	K1	K2		K1	K2
GTGTNE-524	E	A	LL2ZZB-523	E	A
H22MRM-524	E	A	LLG7DF-524	E	A
H7ZW7V-524	D	B	LMVQ7Q-524	E	A
H9LNAK-524	E	A	LV9HVN-524	E	A
HNH6YJ-523	E	A	M9BDL4-524	E	A
HUNRXD-524	E	A	MBGQBH-524	E	A
HYYPJF-524	E	A	MGJ7DB-523	E	A
J843RU-524	E	A	MLD4ZG-524	E	A
JJLTLX-523	E	A	MN6X7X-524	E	A
JRCC2R-524	D	A	MZU27G-524	E	A
JXY7W4-524	E	A	N6P3TG-524	E	A
JYGVH6-524	E	A	NBEHHN-524	E	A
K3C3KE-524	E	A	NBNLYT-524	E	A
K47TQT-524	E	A	NH83FA-523	E	A
KGC3VU-524	E	A	NJ2N7F-524	E	A
KH8LYG-524	D	B	NJ766E-524	E	A
KLZRAC-524	E	A	NLBMGN-524	E	A
KLZVYG-524	E	A	NLTHCW-524	E	A
L77KXW-524	E	A	NRZ7RJ-524	E	A
L9PQ3K-524	E	A	NWPTEC-524	E	A
LBYHMM-524	E	A	P44VYJ-524	E	A
LCXM2W-523	E	A	PACDGK-524	D	B
LDHT7K-523	E	A	PELMEG-524	E	A
LHEEXN-524	E	A	PTN7ZE-524	E	A
LKRVLN-524	D	B	Q3VYDF-524	E	A

TABLE 1a- Handwriting on Q1

WebCode-Test	Handwriting on Q1		WebCode-Test	Handwriting on Q1	
	K1	K2		K1	K2
Q84B2F-523	E	A	VF64QC-524	E	A
QCYCAA-523	E	A	VJLPZB-523	E	A
QP3TNP-524	E	A	VLNDF-523	E	A
QVMNRE-524	E	A	VNCAXY-524	E	A
RANTNJ-524	E	A	VQFUYE-524	E	A
RV7XB8-523	D	A	VWLMTA-523	E	A
T3ZGVA-524	E	A	W39NXT-524	E	A
T4VZXB-523	E	A	W4NZGJ-524	E	A
T6L7FM-523	E	A	W787M9-524	E	A
T9N4QF-524	E	A	W83RDE-523	E	A
TAJQD6-523	E	A	WARXXB-524	E	A
TBDGJJ-524	E	A	WDUPD3-524	E	A
TF99U2-524	E	A	WE28AD-524	E	A
TVNAN7-524	E	A	WG7K8E-524	E	A
U92VGB-523	E	A	WRULHM-524	E	A
UBQCGB-524	E	A	WUVUHQ-524	E	A
UFGY2H-524	E	A	X6QEAH-524	E	A
UK3AM3-524	E	A	X6WD27-524	E	A
UL94UM-524	E	A	XCCDWA-524	E	A
UL94W9-523	E	A	XD8WXB-524	E	A
UR4JZM-524	E	A	XNQ7L6-524	E	A
UUMP6C-524	E	A	XPZFE2-524	E	A
V23UL3-524	E	A	YBX4J3-524	E	A
V6ZCRH-524		A	YJAABZ-523	E	A
V9E4HB-524	E	A	YQQND6-524	E	A

TABLE 1a- Handwriting on Q1

WebCode-Test	Handwriting on Q1		WebCode-Test	Handwriting on Q1	
	K1	K2		K1	K2
Z492JB-523	E	A			
Z4VEE4-524	E	A			
Z7XBTC-524	E	A			
ZETDXA-523		A			
ZHRRHD-524	E	A			
ZHWQB3-524	E	A			
ZLTERA-524	E	A			
ZM3TP3-523	E	A			
ZPUMVK-523	D	B			
ZWRAP6-523	E	A			
ZZBKA3-524	E	A			

**Response Summary Handwriting on Q1**

Total Participants: 207

Which, if either, of the known writers wrote the questioned writing (excluding the signature) on the honor code agreement?

Response	Handwriting on Q1		
	K1	K2	
A	0	198	<p>Note: The totals do not add up to the total number of participants because not all participants marked a response for all items.</p> <p><b>Response Key:</b>  A: Was WRITTEN by;  B: Was PROBABLY WRITTEN by (some degree of identification);  C: CANNOT be IDENTIFIED or ELIMINATED;  D: Was PROBABLY NOT WRITTEN by (some degree of elimination);  E: Was NOT WRITTEN by.</p>
B	0	9	
C	0	0	
D	14	0	
E	187	0	



# Examination Results

*Which, if either, of the known writers wrote the questioned signature on the honor code agreement?*

TABLE 1b- Signature on Q1

WebCode-Test	Signature on Q1		WebCode-Test	Signature on Q1	
	K1	K2		K1	K2
23DU2J-524	E	A	6BDAD9-523	E	A
26K6Z9-523	E	A	6FMZPA-524	E	A
27XLB2-524	E	A	6HC3FZ-524	E	A
2AXP9F-524	E	A	6QQVK6-524	E	A
2FFCND-524	E	A	6WXD4R-524	E	A
2HRV62-524	D	A	74BQK2-524	E	A
2JH2GL-524	E	A	7QATYQ-524	E	A
2UX3NE-524	E	A	7VGJYB-523	E	A
34LF36-524	E	A	8BN7JP-523	D	B
34QEUU-524	E	A	8H96CH-524	E	A
36HJ38-524	E	A	8J79AZ-523	E	A
38M3B2-524	E	A	8LCVM6-523	E	A
3B4PKZ-524	D	A	8TQNUU-524	E	A
3KUBQX-524	E	A	8YDED4-524	E	A
3LN2WC-523	E	A	93U9FM-524	E	A
3QTWLE-524	E	A	9ATLRJ-524	E	A
3V98TG-524	E	A	9P69TZ-524	E	A
438497-524	E	A	9TKQXN-524	E	A
482VHN-524	E	A	A2YT26-524	E	A
4JYRMB-524	E	A	A3LP6N-524	E	A
4K6CAC-524	D	B	A6ZWTR-524	E	A
4MPHFZ-524		A	AA3YM7-523		A
68HMQZ-523	E	A	AA4U8X-524	E	A

TABLE 1b- Signature on Q1

WebCode-Test	Signature on Q1		WebCode-Test	Signature on Q1	
	K1	K2		K1	K2
ABLYRG-524	E	A	EHJE3W-524	E	A
ACCABM-524	E	A	EHLZZX-524	E	A
AJVF79-523	E	A	EKUAUF-524	E	A
AMWLMZ-523	E	A	ELPX96-524	E	A
ATYMTV-524	E	B	ER7FKR-524	D	A
AU8WKT-523	E	A	ERBUTL-524	E	A
AYMD84-524	E	A	ERUJFM-524	E	A
AZ63VP-523	E	A	EUJ36Q-523	E	A
BNJKD3-523	E	A	EZGLCN-523	E	A
BTX3QD-524	E	A	F2F3B7-524	E	A
C899DW-524	E	A	F6A6RR-524	E	A
CDXR9Z-524		A	F6R8M8-524	E	A
CFHJK3-523	E	A	F7MTDC-524	E	B
CPVLUA-524	E	B	FA8HXP-524	E	A
CQ7J8R-524	D	A	FAKAQ7-524	E	A
CRZ8N2-523	E.	A.	FANP6T-524	E	A
CU32ER-523	E	A	FFRPBN-524	E	A
CVYLBR-524	D	B	FJCK9E-524	E	A
D94Y8H-524	E	A	FQEUBZ-524	E	A
DGHU4C-524	E	A	GBWR9X-523	E	A
DKT6UL-523		A	GBX478-524	E	A
DNDW6N-524	E	A	GG2ZVY-523	E	A
E7AUPV-523	E	A	GG3VGP-524	E	A
E9YXN4-524	E	A	GM7VKZ-524	E	A
EGRAUH-524	D	B	GMQJV8-524	E	A

TABLE 1b- Signature on Q1

WebCode-Test	Signature on Q1		WebCode-Test	Signature on Q1	
	K1	K2		K1	K2
GTGTNE-524	E	A	LL2ZZB-523	D	B
H22MRM-524	E	A	LLG7DF-524	D	B
H7ZW7V-524	D	B	LMVQ7Q-524	D	B
H9LNAK-524	D	B	LV9HVN-524	E	A
HNH6YJ-523	E	A	M9BDL4-524	E	A
HUNRXD-524	E	A	MBGQBH-524	D	B
HYYPJF-524	E	A	MGJ7DB-523	E	A
J843RU-524	E	A	MLD4ZG-524	E	A
JJLTLX-523	E	A	MN6X7X-524	E	A
JRCC2R-524	D	A	MZU27G-524	E	A
JXY7W4-524	E	A	N6P3TG-524	E	A
JYGVH6-524	E	A	NBEHHN-524	E	A
K3C3KE-524	E	A	NBNLYT-524	E	A
K47TQT-524	E	A	NH83FA-523	E	A
KGC3VU-524	E	A	NJ2N7F-524	E	B
KH8LYG-524	D	B	NJ766E-524	E	A
KLZRAC-524	E	A	NLBMGN-524	E	A
KLZVYG-524	E	A	NLTHCW-524	E	A
L77KXW-524	E	A	NRZ7RJ-524	E	A
L9PQ3K-524	E	A	NWPTEC-524	E	A
LBYHMM-524	E	B	P44VYJ-524	E	A
LCXM2W-523	E	A	PACDGK-524	E	A
LDHT7K-523	E	A	PELMEG-524	E	A
LHEEXN-524	E	A	PTN7ZE-524	E	A
LKRVLN-524	D	B	Q3VYDF-524	E	A

TABLE 1b- Signature on Q1

WebCode-Test	Signature on Q1		WebCode-Test	Signature on Q1	
	K1	K2		K1	K2
Q84B2F-523	E	A	VF64QC-524	E	A
QCYCAA-523	E	A	VJLPZB-523	E	A
QP3TNP-524	E	A	VLNDF-523	D	B
QVMNRE-524	E	A	VNCAXY-524	E	A
RANTNJ-524	E	A	VQFUYE-524	E	A
RV7XB8-523	E	A	VWLMTA-523	E	A
T3ZGVA-524	E	A	W39NXT-524	E	A
T4VZXB-523	E	A	W4NZGJ-524	E	A
T6L7FM-523	E	A	W787M9-524	E	A
T9N4QF-524	E	A	W83RDE-523	E	A
TAJQD6-523	E	A	WARXXB-524	E	A
TBDGJJ-524	E	A	WDUPD3-524	D	B
TF99U2-524	E	A	WE28AD-524	A	A
TVNAN7-524	E	A	WG7K8E-524	E	A
U92VGB-523	E	A	WRULHM-524	E	A
UBQCGB-524	C	A	WUVUHQ-524	E	A
UFGY2H-524	E	A	X6QEAH-524	E	A
UK3AM3-524	E	C	X6WD27-524	E	A
UL94UM-524	E	A	XCCDWA-524	E	A
UL94W9-523	E	A	XD8WXB-524	E	A
UR4JZM-524	E	A	XNQ7L6-524	E	A
UUMP6C-524	E	A	XPZFE2-524	E	A
V23UL3-524	E	A	YBX4J3-524	D	B
V6ZCRH-524		A	YJAABZ-523	E	A
V9E4HB-524	E	A	YQQND6-524	E	A

TABLE 1b- Signature on Q1

WebCode-Test	Signature on Q1		WebCode-Test	Signature on Q1	
	K1	K2		K1	K2
Z492JB-523	E	A			
Z4VEE4-524	E	A			
Z7XBTC-524	E	A			
ZETDXA-523		A			
ZHRRHD-524	E	A			
ZHWQB3-524	D	B			
ZLTERA-524	E	A			
ZM3TP3-523	E	A			
ZPUMVK-523	D	B			
ZWRAP6-523	E	A			
ZZBKA3-524	E	A			

**Response Summary Signature on Q1**Total Participants: **207***Which, if either, of the known writers wrote the questioned signature on the honor code agreement?*

Response	Signature on Q1		
	K1	K2	
A	1	184	<p>Note: The totals do not add up to the total number of participants because not all participants marked a response for all items.</p> <p><b>Response Key:</b>  A: Was WRITTEN by;  B: Was PROBABLY WRITTEN by (some degree of identification);  C: CANNOT be IDENTIFIED or ELIMINATED;  D: Was PROBABLY NOT WRITTEN by (some degree of elimination);  E: Was NOT WRITTEN by.</p>
B	0	22	
C	1	1	
D	22	0	
E	177	0	

# Conclusions

TABLE 2

WebCode-Test	Conclusions
23DU2J-524	3.1 The evidence supports the proposition that the writer of the specimen writing marked "K2a" to "K2c" wrote the disputed writing marked "Q1". 3.2 The evidence supports the proposition that the writer of the specimen signatures marked "K2a" to "K2c" signed the disputed signature marked "Q1".
26K6Z9-523	The opinions listed below are based on the examination of a non-original document in Item Q1. The examination of a copy is a limitation to the handwriting examination because portions of the writing features cannot be fully assessed. It is highly probable that Maggie Burke (Item K1) was not the writer of the hand printing and signature depicted on the document in Item Q1. It is highly probable that Bonnie Craig (Item K2) was the writer of the hand printing and signature depicted on the document in Item Q1.
27XLB2-524	[No Conclusions Reported.]
2AXP9F-524	It my opinion that: 1: The evidence provides very strong support for the proposition that the handwritten entries appearing on the questioned document, item Q1, were written by the writer of the Bonnie CRAIG specimens, items K2a-c. 2: The evidence provides very strong support for the proposition that the handwritten signature appearing on the questioned document, item Q1, was written by the writer of the Bonnie CRAIG specimens, items K2a-c.
2FFCND-524	Student Bonnie craig ( K2 )wrote the questioned writing and the question signature on the honor code agreement.
2HRV62-524	The questioned writing, including the signature, on Item 1 (Q1) was prepared by BONNIE CRAIG, the known writer of Item 3 (K2a-c). A definite opinion could not be reached whether the questioned writing, including the signature, on Item 1 (Q1) was or was not prepared by MAGGIE BURKE, the known writer of Item 2 (K1a-c) due to the limited quantity of undictated known writing and the presence of unexplained characteristics. However, inconsistencies were observed to indicate BURKE may not have prepared the Item 1 (Q1) questioned writing, including the signature.
2JH2GL-524	After examination and comparison I reached the following conclusions: 1. The writer of the specimen writing and signatures marked K2a – K2c also wrote the question writing on the question document marked Q1. 2.The writer of the specimen writing and signatures marked K2a – K2c also signed the questioned signature on the questioned document marked Q1.
2UX3NE-524	Graphic characteristic's study of questioned Q1 allows to conclude that Q1 was written and signed by the same person. The comparative observation of major graphic elements was done between Q1 and the known writing samples from Maggie BURKE and Bonnie CRAIG. Maggie BURKE's handwriting presents incompatible characteristics with writing and signature Q1. So Maggie BURKE has not written and signed Q1. On the other hand, there are undeniable matching graphic elements between Q1's writing and signature and some elements of Bonnie CRAIG's handwriting. In conclusion, Bonnie CRAIG wrote and signed Q1.
34LF36-524	1. The writing of the honour code agreement shows many similarities to the writing of Bonnie Craig in items K2a, K2b, and K2c. No single similarity is conclusive but the combination of similarities leads me to conclude that Bonnie Craig made that writing. 2. The writing of the signature in the name of Maggie Burke in the honour code agreement, item Q1, has been written fluently and shows no sign of having been produced by tracing or other mechanical process. The writing of it differs greatly from that of the signatures written by Maggie Burke in items K1a, K1b, and K1c. If those genuine examples represent the manner in which Maggie Burke habitually signs her name my examinations lead me to conclude that the signature in item Q1 was not written by Maggie Burke. 3. The signature in the name of Maggie Burke in item Q1 shows many similarities to the writings of signatures in that name by Bonnie Graig[sic] in items K2a, K2b, and K2c. My observations lead me

TABLE 2

WebCode-Test	Conclusions
	to conclude that the signature in item Q1 was written by Bonnie Graig[sic].
34QEUU-524	Q1 handwriting: Bonnie Craig - A: The detected characteristics were similar between the questioned handwriting and Bonnie Craig's samples. Maggie Burke - E: The[sic] were so many differences what could be detected in the examination that has allowed answer E. Q1 signature: Bonnie Craig - A: The detected characteristics were similar between the questioned handwriting and Bonnie Craig's samples. Maggie Burke - E: The[sic] were a lot of differences between the questioned signature and the name bearer's signatures.
36HJ38-524	In respect of the questioned writing and signature on document Q1 and collected writing on document K2a-K2c, there is a strong correspondance in respect of letter design and construction, includind size and proportion, uniformity and alignment. The conclusin thereof suggests that the writting was written by the same writer. In respect of questioned writing and signatures Q1 and collected writing K1a-K1c, the writing was not written by the samne writer. [sic]
38M3B2-524	It was determined that the questioned writing, including the signature, on Item 1 (Q1) was prepared by Bonnie Craig, writer of Item 3 (K2a-c).
3B4PKZ-524	It was determined that Bonnie Craig, the Item 3 (K2a-c) writer, prepared the questioned writing and signature on Item 1 (Q1). A definite determination could not be reached whether Maggie Burke, the Item 2 (K1a-c) writer, prepared the questioned writing and signature on Item 1 (Q1) due to the presence of unexplained characteristics. However, inconsistencies were noted which indicate that Burke may not have prepared the questioned writing and signature on Item 1 (Q1).
3KUBQX-524	It was determined that the questioned writing on Item 1 (Q1), excluding the numerals, was prepared by BONNIE CRAIG, the Item 3 (K2a-c) writer. A definite determination could not be reached whether the questioned numerals on Item 1 (Q1) were or were not prepared by BONNIE CRAIG, the Item 3 (K2a-c) writer, due to the limited quantity of the questioned numerals. However, similarities were observed to indicate BONNIE CRAIG may have prepared this writing. It was determined that the questioned writing on Item 1 (Q1), excluding the numerals, was not prepared by MAGGIE BURKE, the Item 2 (K1a-c) writer. A definite determination could not be reached whether the questioned numerals on Item 1 (Q1) were or were not prepared by MAGGIE BURKE, the Item 2 (K1a-c) writer, due to the limited quantity of the questioned numerals. However, dissimilarities were observed to indicate MAGGIE BURKE may not have prepared this writing.
3LN2WC-523	The evidence provides very strong support for the proposition that the questioned handwriting and signature on Q1 was written by the K2 Specimen writer, attributed to Bonnie Craig. The evidence provides very strong support for the proposition that the questioned handwriting and signature on Q1 was NOT written by the K1 Specimen writer, attributed[sic] to Maggie Burke.
3QTWLE-524	Study the handwriting made to manuscriturales[sic] elements of doubt and undoubted, it was determined that Bonnie Craig, who wrote the question Q1 text.
3V98TG-524	CRAIG wrote the questioned handwritten entries on Q1.
438497-524	The comparison of the respective material revealed the following facts: strong corresponding characteristics in respect of elements of style and execution were identified between the questioned writing marked "Q1" and specimen writing marked "k2a" to "k2c". In light of the above analysis and comparison, I came to the following conclusions: The writing and the signature on the questioned document marked "Q1" was written by the writer of the specimen writing and signature on the documents marked "K2A" to "K2C". The writing and the signature on the questioned document marked "Q1" was NOT written by the writer of the specimen writing and signature on the documents marked "K1A" to "K1C". [sic]
482VHN-524	1. The writer of the specimen writing and signatures marked K2a – K2c also wrote the disputed writing on the document marked Q1. 2. The writer of the specimen writing and signatures marked K2a – K2c also signed the disputed signature on the document marked Q[sic].

## TABLE 2

WebCode-Test	Conclusions
4JYRMB-524	Bonnie Craig (Item K2 a-c) wrote (i.e. a full identification) the questioned hand printed body, "Maggie Burke" signature and date entry on the Item Q1 honor code agreement. Supporting examination documentation is maintained in the case file.
4K6CAC-524	It is highly unlikely that the writer of the specimen handwriting on K1 (a-c) attributed to Maggie Burke wrote the original of the questioned handwriting reproduced on Q1. That is to say, it is highly probable that a person other than the writer of the specimen handwriting attributed to Maggie Burke, wrote the original of the questioned handwriting reproduced on Q1. It is unlikely that the writer of the specimen signatures and handwriting on K1 (a-c) attributed to Maggie Burke wrote the original of the questioned signature reproduced on Q1. That is to say, it is probable that a person other than the writer of the specimens attributed to Maggie Burke wrote the original of the questioned signature reproduced on Q1. (The conclusions with respect to the Bonnie Craig specimens are independent of the conclusions expressed above with respect to the Maggie Burke specimens, and vice versa.) It is highly probable that the writer of the specimen handwriting on K2(a-c) attributed to Bonnie Craig wrote the original of the questioned handwriting reproduced on Q1. That is to say, it is highly unlikely that this questioned handwriting was written by a person other than the writer of the specimen handwriting attributed to Bonnie Craig. It is probable that the writer of the specimen signatures and handwriting on K2 (a-c) attributed to Bonnie Craig wrote the original of the questioned signature reproduced on Q1. That is to say it is unlikely that the questioned signature was written by a person other than the writer of the specimen signatures and handwriting attributed to Bonnie Craig.
4MPHFZ-524	OPINION: Based on the original documents submitted and after careful and complete examination, using accepted methods of document examination, the evidence supports my professional opinion that the signature, printed writings and numbers on questioned document Q1 were all written by the writer of K2a, K2b, K2c Bonnie Craig. There were significant similarities and no significant differences between the known writings of Bonnie Craig and questioned document Q1 which included but is not limited to: Overall slant, overall height, loops, ticks, i-dots, lateral expansion, relationship to the writing line, relationship to the beginning of the writing line, beginning strokes, connecting strokes, ending strokes, proportions of upper zone letters to mid zone letters, proportions of upper zone letters to themselves, proportions of mid zone letters to themselves, proportions of mid zone letters to lower zone letter, pattern recognition, spacing between letters, between numbers and between numbers and virgules, spacing between names, length and slant of virgules, writings below the line, letter formation of almost every letter printed and cursive can be matched to known writings of Bonnie Craig including combination letters he, te, ti, fo, and pe.
68HMQZ-523	We would draw up pairs of mutually exclusive hypotheses for each comparison to be made in advance. In our conclusions we then don't give an opinion on the probability of these hypotheses, but on the probability of our findings (results of each comparison) in the light of the (typically two) hypotheses. For the comparison of the questioned writing on Q1 with the known samples of K1 these hypotheses would be: (H1) The questioned writing Q1 was written by K1 vs. (H2) The questioned writing was written by any other person than K1. We use the following "scale" of conclusions if we can give an opinion at all: The results of the comparative handwriting examination between Qi and Kj are: about equally probable, slightly more probable, more probable, much more probable, very much more probable, extremely much more probable, when hypothesis H1 is correct as/than with hypothesis H2 is correct (or the other way around). The limited space here does not allow us to work out all conclusions in the wording we use, but these are consistent with the responses given at 1 and 2.
6BDAD9-523	THE TOTALITY OF THE HANDWRITING[ <i>sic</i> ] QUESTIONED TEXTS AND THE QUESTIONED SIGNATURE OF THE EVIDENCE Q1, HAVE BEEN WRITTEN BY BONNIE CRAIG, THE AUTHORESS OF THE WRITTEN SAMPLE K2.
6FMZPA-524	1. Bonnie Craig wrote the signature and handwritten entries on Item Q1. 2. Maggie Burke did not



## TABLE 2

WebCode-Test	Conclusions
	write the signature and handwritten entries on Item Q1.
6HC3FZ-524	3a) All of the handwritten entries (including the signature and date) on item Q1 were written by Bonnie Craig, author of the K2(a-c) writing sample. 3b) All of the handwritten entries (including the signature and date) on item Q1 were NOT written by Maggie Burke, author of the K1(a-c) writing sample. 3c) The handwriting conclusions are demonstrable through the use of enlarged illustrative charts. If testimony is anticipated, please return all items and allow at least three weeks for the necessary preparations.
6QQVK6-524	[No Conclusions Reported.]
6WXD4R-524	According to the analyzes performed, the material submitted and the arguments of a technical nature foregoing is determined that there is identity between the known GRAPHIC Manuscripts student Bonnie Craig. K2 (a,b,c) and corresponding to the code of honor (Q1) Manuscript. According to the analyzes performed[sic] the material submitted and the arguments of a technical nature foregoing is determined that there is identity between the signature GRAPHIC known student Bonnie Craig. K2 (a,b,c) and the corresponding signature to the code of honor (Q1).
74BQK2-524	1. As to the writer of Document Q-1, the honor code agreement, Maggie Burke (K1) did not write it. 2. As to the writer of document Q-1, the honor code agreement signature, Maggie Burke (K1) did not write it. 3. As to the writer of Document Q-1, the honor code agreement, Bonnie Craig, (K2), did write it. 4. As to the writer of document Q-1, the honor code agreement signature, Bonnie Craig (K2) did write it.
7QATYQ-524	STUDIO[sic] WHIT[sic] SIGNS CONCLUDE: 1. THE WRITING AND SIGNATURE OF DOCUMENT KNOWN Q1 IS IDENTIFIED WITH THE WRITING AND SIGNATURE ON THE DOCUMENT VIEWED MATERIALS K2a-c. 2. THE WRITING AND SIGNATURE OF DOCUMENT KNOWN Q1, NOT IDENTIFIED WITH THE WRITING AND SIGNATURE ON THE DOCUMENT VIEWED MATERIALS K1-a-c.
7VGJYB-523	Based on the combination of similarities in handwriting features observed, and in the absence of differences, I formed the opinion that the questioned handwriting and BURKE signature on item Q1 were written by the writer of the sample CRAIG handwriting and signatures on items K2a-c. Based on the combination of differences in handwriting features observed, I formed the opinion that the questioned handwriting and BURKE signature on item Q1 were not written by the writer of the sample BURKE handwriting and signatures on items K1a-c.
8BN7JP-523	For question 1.) The questioned writing was probably not written by Maggie Burke (K1). The questioned writing was probably written by Bonnie Craig (K2). For question 2.) The questioned signature was probably not written by Maggie Burke (K1). The questioned signature was in all probability written by Bonnie Craig (K2).
8H96CH-524	1.) The evidence supports the proposition that the writing in question on the document marked "Q1" was not written by the author of "K1". 2.) The evidence supports the proposition that the writing in question on the document marked "Q1" was written by the author of "K2". 3.) The evidence supports the proposition that the signature in question on the document marked "Q1" was not written by the author of "K1". 4.) The evidence supports the proposition that the signature in question on the document marked "Q1" was written by the author of "K2".
8J79AZ-523	In as much as it is possible to examine digital files/images in lieu of the original documents, it is my opinion that Bonnie Craig wrote the questioned manuscript printing and questioned Maggie Burke signature on Q1.
8LCVM6-523	It is my conclusion Bonnie Craig is the author of the hand printed entries and the Maggie Burke signature on the Honor Code Agreement. It is my conclusion Maggie Burke did not author the hand printed entries nor the Maggie Burke signature on the Honor Code Agreement. This elimination is based on the differences in the combination of writing characteristics observed

## TABLE 2

WebCode-Test	Conclusions
	between Maggie Burke's known writing and the Honor Code Agreement.
8TQNUU-524	The questioned writing and signature on exhibit Q1 was not written by the K1 writer (Maggie Burke). This finding is based upon the presence of numerous significant differences observed within the writing and signature. The questioned writing and signature on exhibit Q1 was written by the K2 writer (Bonnie Craig). This finding is based upon the agreement of significant individualizing handwriting characteristics with the absence of any significant differences within the writing and signature.
8YDED4-524	Significant similarities in respect of elements of style and execution were identified between[sic] the writing and signature in question on the document marked "Q1" and the specimen writing and signatures on the documents marked "K2 (a)-(c)". Significant differences in respect of elements of style and execution were identified between[sic] the writing and signature in question on the document marked "Q1" and the specimen writing and signatures on the documents marked "K1 (a)-(c)". I, thus, found the evidence to support the proposition that the writing and signature in question ("Q1") was written by the writer of the specimen material marked "K2(a)-(c)" and NOT the writer of the specimen material marked "K1(a)- (c)".
93U9FM-524	A) THE MANUAL WRITINGS AND THE SIGNATURES SINCE OF MAGGIE BURKER WICH ARE PART OF THE PROCESSING OF THE FORMAT CODE OF HONOR DATED "51415" (Q1), PRESENTED GRAPHIC IDENTITY WITH THE QRITING SAMPLES OF THE BONNIE CRAIG ( K2A, K2B, AND K2C). B) THE MANUAL WRITINGS AND THE SIGNATURES SINCE OF MAGGIE BURKER WICH ARE PART OF THE PROCESSING OF THE FORMAT CODE OF HONOR DATED "51415" (Q1), NOT PRESENT IDENTITY GRAPHIC WITH THE WRITING SAMPLES OF THE MAGGIE BURKE (K1a, K1b, AND k1c). [sic]
9ATLRJ-524	3.1 Significant differences were identified between the questioned writing and signature on the document marked as "Q1" and the specimen writing and signatures on the documents marked as "K1a-c". The evidence is, thus, conclusive that "Q1" WAS NOT WRITTEN and SIGNED by "K1". 3.2 Strong similarities were identified between the questioned writing and signature on the document marked as "Q1" and the specimen writing and signatures on the documents marked as "K2a-c". No significant and/or inexplicable differences were identified between the respective materials. The evidence is, thus, conclusive that "Q1" WAS WRITTEN and SIGNED by "K2".
9P69TZ-524	The questioned writing and signature on the honor code agreement were not written by Maggie Burke (K1) but were written by Bonnie Craig (K2).
9TKQXN-524	1. No evidence of significance was found to indicate that the questioned signature "Maggie Burke" and questioned hand writing on the handprinted and signed test code agreement, Exhibit Q1, was executed by the K1 (a-c) specimen writer. 2. It was concluded that the questioned signature "Maggie Burke" and questioned hand writing on the handprinted and signed test code agreement, Exhibit Q1, was executed by the K2 (a-c) specimen writer.
A2YT26-524	Based on an examination and comparison of the items submitted, it is this examiner's opinion that the Q1 questioned text and signature were written by the K2 writer Bonnie Craig.
A3LP6N-524	Examination, comparison, and evaluation of the handwriting and signature on the questioned and known samples resulted in the following opinion(s): The questioned handwriting and signature appearing on the honor code agreement Lab item #3 (Q1) were written by the author of the known writing samples (Bonnie Craig/K2 a-c) Lab item #2. The questioned handwriting and signature appearing on the honor code agreement Lab item #3 (Q1) were not written by the author of the known writing samples (Maggie Burke/K1 a-c) Lab item #1.
A6ZWTR-524	The handwriting and signature in item Q1 corresponds closely to the specimens of Bonnie Craig in item K2 and in my opinion Bonnie Craig is the writer of the handwriting and signature in Q1. The handwriting and signature in item Q1 differs significantly from the specimens of Maggie Burke in item K1 and in my opinion, she is not the writer of Q1.

## TABLE 2

WebCode-Test	Conclusions
AA3YM7-523	1. Bonnie Craig (K2) has written the questioned Honor Code Agreement (Q1). 2. Bonnie Craig (K2) has signed on the questioned Honor Code Agreement (Q1) with Maggie Burke (K1) signature.
AA4U8X-524	Written and signing of the test, were performed by the scriptural source K2.
ABLYRG-524	The evidence supports the proposition that the writing and signature in question was written by the author of the specimen writings and signatures on the documents marked "K2A" to "K2C". The evidence supports the proposition that the writing and signature in question was not written by the author of the specimen writings and signatures on the documents marked "K1A" to "K1C".
ACCABM-524	The questioned writings found on face of Q1 (Honor Agreement) starting with "I, Maggie Burke, hereby..." and signed "Maggie Burke" and dated "5/14/2015" was compared to the known handwritings of Maggie Burke (K1a-c) and Bonnie Craig (K2a-c). As a result of the side by side comparisons of the questioned writings (Q1) to the known standards of K1 and K2, it offer[sic] that Q1 was not written by Maggie Burke. I found differences in writing ability, slant and letter formations and letter connections (cursive vs written) that support that conclusion. I also concluded that Maggie Burke did not author the signature found at the bottom of Q1. I can conclude that Q1 to include the body of the writings along with the signature was written by Bonnie Craig. I found similarities in letter formations (i.e. t-i formed as one letter), letter combinations written as cursive writings ehen[sic] the rest of the document was in printing ( i.e. e-e w-e and f-y combinations etc.) intra-word spacings (n-a), hieght[sic] rations between letters within the same word (i.e. whose) baseline relationship especially evident on the signature line, letter formations and even the unusual punctuation above the l's. A chart documenting supporting those conclusions was prepared and added to this report: (See Below). [CTS is unable to reproduce the referenced chart.]
AJVF79-523	The questioned hand printing and signature were written by the writer of the "Bonnie Craig" exemplars.
AMWLMZ-523	Based on the side by side comparisons of the writing submitted on Q1 to the known writings of Bonnie Craig (K2a-c) and Maggie Burke (K1a-c) it is my opinion that: The known submitted writing and signatures located in the known writings of Bonnie Craig (K2a-c) are of common authorship with the writing and signature located on Q1 document.
ATYMTV-524	a. Inter-comparison examination between the Questioned handwriting on Q1 and the (reported) Known handwriting of Maggie Burke, appearing on K1 a-c, revealed sufficient dissimilarities in individual handwriting characteristics and habits to warrant the opinion that the Questioned handwriting and the (reported) Known handwriting of Maggie Burke do not share common authorship. b. Inter-comparison examination between the Questioned handwriting appearing on Q1 and the (reported) Known handwriting of Bonnie Craig, appearing on K2a-c, revealed several similarities in individual handwriting characteristics and habits. Based upon the presence of these similarities, it is the opinion of this examiner that the Questioned handwriting and the (reported) Known handwriting was probably written by Bonnie Craig. Additional known handwriting samples of Bonnie Craig, both requested and non-requested, may assist in rendering a more definite opinion. c. Inter-comparison examination between the Questioned "Maggie Burke" signature appearing on Q1 and the (reported) Known signatures of Maggie Burke, appearing on K1a-c, revealed sufficient dissimilarities in individual handwriting characteristics and habits to warrant the opinion that the Questioned "Maggie Burke" signature and the (reported) Known signatures of Maggie Burke do not share common authorship. d. Inter-comparison examination between the Questioned "Maggie Burke" signature appearing on Q1 and the "Maggie Burke" signature exemplars (reportedly) provided by Bonnie Craig, appearing on K2a-c, revealed several similarities in individual handwriting characteristics and habits. Based upon the presence of these similarities, it is the opinion of this examiner that the Questioned "Maggie Burke" signature and the "Maggie Burke" signature exemplars provided by Bonnie Craig probably share common authorship. Additional "Maggie Burke" signature exemplars provided by Bonnie Craig may assist in rendering a more definite opinion.

TABLE 2

WebCode-Test	Conclusions
AU8WKT-523	There is strong support that the questioned writing on document Q1 was written by the writer of K2a; K2b and K2c. These results arose because of a number of individual characteristics and significant similarities to the known signatures allowing for natural variations. There were no fundamental and significant differences.
AYMD84-524	An examination and comparison of the questioned handwriting, including a handwritten "Maggie Burke" signature, on Exhibit Q1 with the specimen handwriting on Exhibits K2(a to c) (Bonnie Craig) have disclosed significant handwriting similarities in combination with no significant differences. The questioned handwriting, including a handwritten "Maggie Burke" signature, on Exhibit Q1 was written by the writer of the specimen handwriting on Exhibits K2(a to c) (Bonnie Craig).
AZ63VP-523	The Q-1 writing and signature was not written /signed by the writer of the K1 documents. The Q-1 writing and signature was written/signed by the writer of the K-2 documents.
BNJKD3-523	It is highly probable that the questioned writings (INCLUDING the signature) on the honor code agreement are written By Bonnie Craig (K2). It is highly probable that the questioned writings (INCLUDING the signature) on the honor code agreement are NOT written By Maggie Burke (K2[sic]). We shouldn't use wording "Was written By".
BTX3QD-524	An analysis and comparison of the elements identified in the respective material presented me with the following facts: 1) Several strong correspondences in respect of elements of style and execution were identified between the handwriting and signature in question marked as "Q1" and the specimen handwriting and signatures marked as "K2a" to "K2c". 2) Several significant differences in respect of elements of style and execution were identified between the handwriting and signature in question marked as "Q1" and the specimen handwriting and signatures marked as "K1a" to "K1c". In light of the above analysis and comparison I found the evidence to support the proposition that the handwriting and signature in question marked as "Q1" were written by the writer of the specimen material marked as "K2a" to "K2c" and were not written by the writer of the specimen material marked as "K1a" to "K1c".
C899DW-524	In respect of the WRITING in question (Q1), I identified significant differences in respect of elements of style and execution between Q1 and the specimen writing marked "K1a-c" (purported to be of one 'Maggie Burke'). Furthermore, I identified significant similarities in respect of elements of style and execution between the writing Q1 and the specimen writing marked "K2a- c" (purported to be of 'Bonnie Craig'). In conclusion, I found the evidence to support the proposition that the writing in question (Q1) was not written by the writer of the specimen writing marked "K1a-c" but rather by the writer of the specimen writing marked "K2a-c". In respect of the SIGNATURE in question, I identified significant differences in respect of elements of rhythm and form between Q1 and the specimen signatures on the documents marked "K1a-c" (purported to be of one 'Maggie Burke'). Furthermore, I identified significant similarities in respect of elements of rthm[sic] and form between the signature in question (Q1) and the specimen writing (the written name "Maggie Burke") on the documents marked "K2a-b" and certain characteristics, such as letter design, dimensions and baseline habits within the signatures purported to be of one 'Bonnie Craig', on the documents marked "K2c". In conclusion, I found the evidence to support the proposition that the SIGNATURE in question (Q1) was not written by the writer of the specimen writing marked "K1a-c" but rather by the writer of the specimen writing marked "K2a-c".
CDXR9Z-524	Known writings of Bonnie Craig (K2).
CFHJK3-523	[No Conclusions Reported.]
CPVLU-524	3.1 After analysis and comparison, I came to the following conclusions regarding questioned document marked "Q1": 3.1.1 Similarities occur between the writing on the questioned document and the specimen writing marked "K2a-K2c", which support evidence to conclude that the same writer is involved. 3.1.2 There is a strong degree of similarity which occur between the questioned

TABLE 2

WebCode-Test	Conclusions
	signature and the specimen signature marked "K2a-K2c", suggesting that the same writer was probably involved.
CQ7J8R-524	BONNIE CRAIG, writer of Item 3 (K2a-c), has been identified as the writer of the hand printed text and signature on Item 1 (Q1). A definite determination could not be reached whether or not MAGGIE BURKE, writer of Item 2 (K1a-c), prepared the hand printed text and signature on Item 1 (Q1), due to the presence of unexplained characteristics and the limited amount of undictated known writing. Based on the numerous dissimilarities between the questioned and known writing, BURKE, may not have prepared the hand printed text and signature.
CRZ8N2-523	Bonnie Craig (K2) wrote the hand printing and signature on the honor code agreement (Q1). Maggie Burke (K1) did not write the hand printing and signature on the honor code agreement (Q1).
CU32ER-523	Based on the expertise result I conclude that handwriting and signature on the document of item Q1 is written/signed from the same person that wrote/signed know sample of item K2a-c and it is not written/signed from the person on the known samples of item K1a-c.
CVYLBR-524	It was determined that the questioned writing located on Item 1 (Q1) was prepared by the writer of Item 3 (K2a-c), Bonnie Craig (excluding the signature and date). A definite determination could not be reached whether Bonnie Craig, writer of Item 3 (K2a-c), did or did not prepare the questioned signature and date on Item 1 due to a limited quantity of known writing and characteristics present in the questioned writing not accounted for in the available known writing. However, characteristics were observed which indicate that Bonnie Craig, writer of Item 3 (K2a-c), may have prepared the questioned signature and date on Item 1. A definite determination could not be reached whether Maggie Burke, writer of Item 2 (K1a-c), did or did not prepare the questioned writing on Item 1 due to a limited quantity of known writing. However, characteristics were observed which indicate that Maggie Burke, writer of Item 2 (K1a-c), may not have prepared the questioned writing on Item 1 (including the signature and date).
D94Y8H-524	It was determined that the test honor code agreement, Q1, was hand printed and signed by Bonnie Craig, K2.
DGHU4C-524	The comparison of the respective material revealed to me the following facts: In respect of the specimen writing on the documents marked "K2a", "K2b" and "K2c": Very strong correspondences in respect of design and construction (including, inter alia, letter design, alignment, proportions, slant and placement) were identified between the questioned writing on the document marked "Q1" and the specimen writing. In respect of the specimen writing on the documents marked "K1a", "K1b" and "K1c": Very strong differences in respect of design and construction (including, inter alia, letter design, alignment, proportions, slant and placement) were identified between the questioned writing on the document marked "Q1" and the specimen writing. In respect of the specimen signatures on the documents marked "K2a", "K2b" and "K2c": Very strong correspondences in respect of design and construction (including, inter alia, letter design, alignment, proportions, slant and placement) were identified between the questioned signature on the document marked "Q1" and the specimen signatures on the documents marked "K2a" and "K2b". Correspondences in respect of design and construction (including, inter alia, letter design, alignment, proportions, slant and placement) were identified between the questioned signature on the document marked "Q1" and the specimen signature on the document marked "K2c". In respect of the specimen signatures on the documents marked "K1a", "K1b" and "K1c": Very strong differences in respect of design and construction (including, inter alia, letter design, alignment, proportions, slant and placement) were identified between the questioned signature on the document marked "Q1" and the specimen signatures. In light of the above analysis and comparison, I concluded the following: The writing and signature in question on the document marked "Q1" was written by the author of the specimen writing and signatures on the documents marked "K2a", "K2b" and "K2c". The writing and signature in question on the document marked "Q1" was not written by the author of the specimen writing and signatures on the documents

TABLE 2

WebCode-Test	Conclusions
	marked "K1a", "K1b" and "K1c".
DKT6UL-523	Annex 1: 1. Examination of research items, designated as Q1, K1 (a,b,c), K2 (a,b,c) was performed by determination of individual characteristics enabling graphic and comparative analysis. Submitted items were qualified for examinations. 2. Comparison was made between distinctive features determined in Q1 item and characteristics determined in K1 (a,b,c) item. The findings led to the conclusion that the item designated as Q1 was not written by the person, whose writing was designated as K1, i.e. Maggie Burke. 3. Then, the comparison was made between distinctive features determined in Q1 item and characteristics determined in K2 (a,b,c) item. The findings led to the conclusion that the item designated as Q1 was written by the person, whose writing was designated as K2, i.e. Bonnie Craig. 4. The next stage involved the analysis of determined features in signature "Maggie Burke" from Q1 item against the writing of person designated as K1. The findings led to the conclusion that the signature "Maggie Burke" (Q1) was not written by the person, whose writing was designated as K1, i.e. Maggie Burke. 5. At the final stage of examination, the analysis of determined features in signature "Maggie Burke" from Q1 item against the characteristics determined in writing of person designated as K2 was performed. The findings led to the conclusion that the signature "Maggie Burke" (Q1) was written by the person, whose writing was designated as K2, i.e. Bonnie Craig.
DNDW6N-524	It was concluded the author of Item K2 a-c, Bonnie Craig, prepared the honor code agreement and the signature on Item Q1.
E7AUPV-523	Handwriting comparisons were conducted between the Item 3 questioned agreement and the Items 1 and 2 sets of known writings. Handwriting comparisons include the characterization and evaluation of both the overt and subtle features of the submitted material. It is the conclusion of this examiner that the Item 3, AKA Q1, agreement was not written or signed by the writer of Item 1, AKA K1, which was submitted as the known writing of Maggie Burke. It was also concluded that the Item 3 agreement was written and signed by the writer of Item 2, AKA K2, which was submitted as the known writing of Bonnie Craig.
E9YXN4-524	1- taking in to account the differences in the grafonomicos aspects, it is concluded that the disputed text was not written by Maggie Burche. 2- In the questioned signature, grafonomicos aspects are identified with Bonnie Craig manuscripts therefore concludes that Bonnie, also developed the signature. [sic]
EGRAUH-524	Based on the examination and comparison of the question witing[sic] listed as Q1 with the known writing standards submitted listed as K1 a-c and K2 a-c, I offer the following. I found that there is a strong probability Bonnie Craig (K2) authored the writing in question beginning with 'I, Maggie Burk[sic]' and ending with 'this answer sheet'. In addition I find that Maggie Burke (K1) probably did not author the writing in question. This finding is based on the examination of ability, slant, and natural variation found in the question writing along with the word-letter combinations with the known standards submitted.
EHJE3W-524	In conclusion, I found the evidence to provide strong support for the proposition that the writing and signature in question on the document marked Q1 was written by the writer of the specimen material marked "K2a", "K2b" and "K2c". Thus, in light of the above finding, I found the evidence to strongly support the proposition that the writing and signature in question (Q1) was not written by the writer of the specimen material marked "K1a", "K1b" and "K1c".
EHLZZX-524	It has been concluded that Bonnie Craig (K2) wrote the questioned material appearing on the Exhibit Q1 item. It has been concluded that Maggie Burke (K1) did not write the questioned material appearing on the Exhibit Q1 item.
EKUAUF-524	THE COMPARATIVE EXAMINATION REVEAL VERY IMPORTANT SIMILARITIES BETWEEN THE WRITING (EXCLUDING SIGNATURE) IN THE QUESTIONED HONOR CODE AGREEMENT (Q1) AND THE IDENTITY CHARACTERISTIC FINDINGS THE KNOWN WRITINGS OF STUDENT BONNIE CRAIG ( K2 a,b,c). THIS IDENTITY DECISIONS IS BASED ON THE EVIDENCES FOUND

TABLE 2

WebCode-Test	Conclusions
	IN THE SAME INCLINATIONS, PROPORTIONS, SIZES, AND KINETICS MOVEMENTS FOR MAKING THE LETTER "e" OF THE WORD bURKE AND THE LETTER "i" AT THE INITIAL TEXT AMONG OTHERS. THE QUESTIONED SIGNATURE ON THE HONOR CODE AGREEMENT (Q1) CORRESPONDS TO THE IDENTITY CHARACTERISTIC THE SIGNATURES AUTHENTIC OF THE STUDENT BONNIE CRAIG (k2 a,b,c). WIHTHING THE ELEMENTS OF IDENTITY THE MORE OUTSTANDING WERE MANUFACTURING OF THE LETTER "M", LINEAR DISPLACEMENT AND KINETIC AND MOVEMENTS OF THE LETTERS AMOMG OTHERS. THE QUESTIONED WRITES AND THE QUESTIONED SIGNATURE ON THE HONOR CODE AGREEMENT (Q1) WERE WRITTEN BY THE STUDENT BONNIE CRAIG (K 2 a,b,c). THE QUESTIONED WRITES AN THE QUESTIONED SIGNATURE ON THE HONOR CODE AGREEMENT (Q1) WHERE NOT WRITTEN THE STUDENT MAGGIE BURKE ( K1 , a,b,c.). [sic]
ELPX96-524	CRAIG wrote the questioned hand printed and signature entries.
ER7FKR-524	1) The writer of the specimen handwriting on K2 wrote the questioned handwriting on Q1, excluding the signature and numeric date entry. 2) The writer of the specimen signatures on K2 wrote the questioned signature on Q1.
ERBUTL-524	The questioned writing and signature were written by Bonnie Craig (K2).
ERUJFM-524	In my opinion, there is conclusive evidence that Bonnie Craig wrote out and signed the agreement, item Q1. The possibility that any other person was responsible, including Maggie Burke, can be excluded.
EUJ36Q-523	The writer of the K1 exemplar documents did not write the printing or signature on Q1. There are numerous dissimilarities in letter construction, slant, spacing, size, line quality and proportion. The K2 exemplar writer wrote the printing and signature on questioned document Q1.
EZGLCN-523	The questioned Maggie Burke signature and writing on the document referred to as Q1 was written by the author of the signatures and writing found on the documents referred to as K2a-c.
F2F3B7-524	THERE ARE SIMILARITIE[sic] IN RESPECT OF WRITING STYLE, CONNECTIONS, LETTER DESIGN AND CONSTRUCTION, ALIGNMENT, COMMENCEMENT AND TERMINATION ON THE WRITING AND SIGNATURES IN QUESTION MARKED AS "K2a to "K2c. THE EVIDENCE IS THUS CONCLUSIVE THAT THE QUESTIONED WRITING AND SIGNATURES ON THE DOCUMENT MARKED AS "Q1" AND THE SPECIMEN WRITING AND SIGNATURES MARKED AS "K2a" to "K2c" WRITTEN BY THE SAME AURTHOR[sic].
F6A6RR-524	To perform a detailed analysis grafonomico both to the manuscripts and signature seen on the admission test Q1 opposite the known writings of the student BONNIE CRAIG K2a-c used as pattern, and where aspects and graphical subaspectos is estimated as: speed, incline, proportionality, dilatation, concentration, graphic times, heights, morfoletrica, interliterales, interverbales spaces, graphic box, points construction of initiation and completion, tremors, links, stops, topographic distribution, management of space, torsions, movements adductor, flexor, abductors, extenders, angularity and caliber, was found that is identified GRAFONOMICANTE therefore exists UNIPROCEDENCIA MANUSCRITURAL. By the above, manuscripts and signature seen in the admission test Q1 not be identified MANUSCRITURALMENTE with the known writings of the student MAGGIE BURKE K1 a-c used as a pattern. [sic]
F6R8M8-524	I found evidence to support the proposition that the writing in question (questioned handwriting and questioned signature) on the document marked "Q1" was written by the writer of the specimen writing marked "K2a" to "K2c".
F7MTDC-524	3.1 After examination and comparison I reached the following conclusions in terms of Questioned document marked "Q1": 3.1.1 There is sufficient evidence to support the conclusion that the questioned writing marked "Q1" were written by the writer of the specimen marked "K2a-K2c".

TABLE 2

WebCode-Test	Conclusions
	3.1.2 There is a strong degree of similarity in respect of design and execution between the questioned signature on the document "Q1" and the specimen signatures on the document marked "K2a-K2c", suggesting that it may have been written by the same author.
FA8HXP-524	I found many similarities and no significant differences between the writing and signature on Q1 and the known writing of Bonnie Craig. Overall, the similarities I found are such that, in my opinion, there is conclusive support for the proposition that Bonnie Craig wrote and signed the questioned document Q1. I found significant differences between the writing and signature on Q1 and the known writing and signatures of Maggie Burke. These differences are of the kind I would expect to find in the writings of different people. Given these findings, and those expressed above, in my opinion Maggie Burke did not write or sign Q1.
FAKAQ7-524	There are similarities in terms of writing style and signature on the document in question marked as Q1 and the writing and signature on the specimen marked as K2a to K2c. There are similarities in terms of line quality, letter design and construction between the writing[sic] and signature on the document in question marked as Q1 and the writing and signature on the specimen writing marked as K2a to K2c. The evidence is thus concluded that the document in question marked as Q1 and the specimen writing and signature on the document marked as K2a to K2c were written by the same author.
FANP6T-524	1. Document Q1 was written by the writer of documents K2 (a to c), submitted as being written by Ms. Bonnie Craig. 2. The signature "Maggie Burke" on document Q1 was signed by the writer of documents K2 (a to c), submitted as being written by Ms. Bonnie Craig.
FFRPBN-524	Based upon the available evidence it is my professional opinion that the questioned hand printed honor code agreement and signature (Q1) was not produced or executed by the author of K1a-c (Maggie Burke) and was produced or executed by the author of K2a-c (Bonnie Craig).
FJCK9E-524	THE HANDPRINTING AND SIGNATURE IN THE DOCUMENT[sic] Q1 (FINAL PART HONOR CODE AGREEMENT) WERE WRITE[sic] BY BONNIE CRAIG.
FQEUBZ-524	The results of the examination strongly support that the questioned writing, including the signature, was not written by Maggie Burke (Level -3). The results of the examination strongly support that the questioned writing, including the signature, was written by Bonnie Craig (Level +3).
GBWR9X-523	Based upon the documents submitted for examination purposes, it is my professional opinion the author of the Standards Used for Comparison (K2a-c, identified as Bonnie Craig) is highly probable the same author of the questioned signature and questioned writing on documents identified as Q1. Numerous individual features of the exemplary request signatures and writing of K2 are in agreement with the questioned signature and writing referred to as Q1. Similarities include, but are not limited to, method of construction for letters, numbers and virgules, spacings, natural pen-lifts, letter height, microforms, letter connections, graphic combinations and signature line placement. Based upon the documents submitted for examination purposes, it is my professional opinion the author of the Standards Used for Comparison (K1a-c, identified as Maggie Burke) is highly probable not the same author of the questioned signature and questioned writing on documents identified as Q1. The writing features and natural habits of the K1 author show significant divergences between the disputed signature and writing of Q1 such as method of construction for letters, numbers, and virgules, spacing, stroke sequence, letter height, microforms, letter forms, graphic combinations, ligatures and signature line placement.
GBX478-524	3.1 The writer and signatory of the specimen documents marked "K2a" to "K2c", purported to be of "Bonnie Craig", also wrote and signed the disputed writing and signature on document marked "Q1". 3.2 The writer and signatory of the specimen documents marked "K1a" to "K1c", purported to be of "Maggie Burke", did not write and sign the disputed writing and signature on document marked "Q1".



## TABLE 2

WebCode-Test	Conclusions
GG2ZVY-523	Similarities and no significant differences were observed between the K2 specimen writer and the Q1 handwritten entries. Based on this, in my opinion, the K2 writer produced the handwritten entries on Q1. The signature on Q1 is not a genuine "Maggie Burke" signature and, based on the signatures provided by the K1 specimen writer, is a spurious signature. Similarities and no significant differences were observed between the K2 specimen signatures in the name "Maggie Burke" and the Q1 signature. Based on this, in my opinion, the K2 writer produced the signature on Q1.
GG3VGP-524	1. According to the individual characteristics, the written portion of "Q1" (I, Maggie Burke,...This answer sheet.) excluding the signature, were "not written" by Maggie Burke ("K1a-c"). 2. According to the individual characteristics, the written portion of "Q1" (I, Maggie Burke...This answer sheet.) excluding the signature were "written" by Bonnie Craig ("K2a-c"). 3. According to the individual characteristics, the signature portions of "Q1" (Maggie Burke) excluding the writings[sic], were "not written" by Maggie Burke ("K1a-c"). 4. According to the individual characteristics, the signature portion of "Q1" (Maggie Burke) excluding the writings[sic], were "written" by Bonnie Craig (K2a-c).
GM7VKZ-524	In line with those charged grafonómicos analysis and to the observed characteristics between the two materials tested, it is concluded that the texts of filling out and dubitados signature prints in the test for admission to the University (Q1), are identified with signs handwriting and signatures provided by the muestradante Bonnie CRAIG (K2a-c), therefore there manuscritural uniprocedencia including in each case. With regard to samples manuscriturales texts and signatures provided by MAGGIE BURKE, they do not identify with the manuscripts and visible signature on the document dubitado (Q1), so there is no manuscritural uniprocedencia including in each case. [sic]
GMQJV8-524	SIGNIFICANT CORRESPONDENCES EXIST BETWEEN THE ELEMENT OF STYLE AND EXECUTION OF MOST OF THE SPECIMEN WRITING AND SIGNATURE MARKED "K2A" TO K2C AND THE DISPUTED WRITING AND SIGNATURE MARKED "Q1". SIMILARITIES IN RESPECT OF THE SIGNATURE FORM AND DESIGN BETWEEN THE DISPUTED SIGNATURE IN THE DOCUMENT MARKED "Q1" AND THE SPECIMEN SIGNATURES ON DOCUMENT MARKED "K2A" TO "K2C." THERE'S EVIDENCE TO SUPPORT THE PROPOSITION THAT THE DISPUTED WRITING AND SIGNATURE IN THE DOCUMENT MARKED "Q1" WAS WRITTEN BY THE AUTHOR OF MOST THE SPECIMEN WRITING AND SIGNATURE ON DOCUMENTS MARKED "K2a' TO "K2C."
GTGTNE-524	It was determined that the agreement, Q-1, was written by Bonnie Craig.
H22MRM-524	The comparison between questioned handwriting and signature on Q1, and specimen handwriting and signatures on documents K2a to K2c, disclosed a significant combination of similarities in writing habits, with no unexplained differences. These similarities include gross and subtle features such as skill, fluency, alignment, general arrangement, spacing, proportions, connections and general construction characteristics. Accordingly, the author of specimen handwriting and signatures on documents K2a to K2c, attributed to Bonnie Craig, wrote the questioned handwriting and signature on document Q1.
H7ZW7V-524	There are indications that Maggie Burke may not have written the test honor code agreement or signed the signature in the name of Maggie Burke on the questioned document, Q1. There are indications that Bonnie Craig may have written the test honor code agreement and signed the signature in the name of Maggie Burke on the questioned document, Q1.
H9LNAK-524	[No Conclusions Reported.]
HNN6YJ-523	Based on the examination and comparison of the submitted questioned and known writing, the following conclusions were reached: The K2 writer wrote the "Maggie Burke" signature, the hand printed and numerical entries on Q1. The K1 writer did not write any of the questioned entries on Q1. Those entries have been identified with another writer.

TABLE 2

WebCode-Test	Conclusions
HUNRXD-524	1.THE MANUSCRIPTS PRESENT IN THE DOCUMENT IDENTIFIED AS Q1, MANUSCRITURALES[sic] IF THE SAMPLES ARE IDENTIFIED MRS.BONNIE CRAIG. 2.THE SIGNATURE PRESENT IN THE DOCUMENT IDENTIFIED AS Q1, IF YOU IDENTIFY WITH THE GENUINE SIGNATURES OF MRS.BONNIE CRAIG.
HYYPJF-524	[No Conclusions Reported.]
J843RU-524	Bonnie Craig provider of the specimens submitted as K2 is identified as the writer of the questioned entries and signature appearing on Q1.
JLTLX-523	In my opinion, the evidence provides very strong support for the proposition that the questioned handwriting and signature appearing on Q1 were written by the writer of the K2 handwriting samples submitted for comparison.
JRCC2R-524	<p>Results of Laboratory Examination: Handwriting comparisons between the known writing depicted in K2a, K2b and K2c (Item 2) and the questioned hand printing and signature depicted on Q1 (Item 3) revealed Bonnie Craig produced the questioned hand printing and signature. (Identification)</p> <p>Handwriting comparisons between the known writing depicted in K1a, K1b and K1c (Item 1) and the questioned hand printing and signature depicted on Q1 (Item 3) revealed it is probable Maggie Burke did not produce the questioned hand printing and signature. (Probable Did Not)</p> <p>Interpretation: The following descriptions are meant to provide context to the opinions reached in this report. Every type of conclusion may not be applicable in every case or for every exam type. Identification (definite conclusion of identity), this is the highest degree of confidence expressed by Forensic Document Examiners. The examiner has no reservations whatsoever, and although prohibited from using the word "fact," the examiner is certain, based on evidence revealed during the examination. Highly probable did (strong probability, very probable), the evidence is very persuasive, yet some critical feature or quality is missing so that an identification is not in order; however, the examiner is virtually certain based on evidence revealed during the examination. Probable did, the evidence is persuasive, yet critical features or quality is missing. The examiner is certain based on evidence revealed during the examination. During examinations, features were examined of significance and are in agreement between the questioned and known evidence; however, it falls short of the highly probable degree of confidence. Indications may have (evidence to suggest), the evidence is persuasive, however many critical features or quality are missing. During examinations, features were examined which are of significance and are in agreement between the questioned and known evidence, however, it falls very short of the highly probable degree of confidence. No conclusion (inconclusive, indeterminable), this is the zero point of the confidence scale. It is used when there are significantly limiting factors, such as disguise in the questioned and/or known evidence or a lack of comparable features and therefore no conclusion can be reached. Indications may not have — the evidence is persuasive, however many critical features or quality are missing. During examinations, features were examined which are of significance that are not in agreement between the questioned and known evidence; however, it falls very short of the highly probable degree of elimination. Probable did not, the evidence is persuasive, yet critical features or quality is missing. The examiner is certain based on evidence revealed during the examination. During examinations, features were examined of significance that are not in agreement between the questioned and known evidence; however, it falls short of the highly probable degree of elimination. Highly probable did not (strong probability did not), the evidence is very persuasive, yet some critical feature or quality is missing so that an elimination is not in order; however, the examiner is virtually certain based on evidence revealed during the examination. Elimination, this is the highest degree of confidence expressed by Forensic Document Examiners. The examiner has no reservations whatsoever, and although prohibited from using the word "fact," the examiner is certain, based on evidence revealed during the examination.</p>
JXY7W4-524	Pertaining to the signature in question: The evidence supports the proposition that the signature in question was not written by the writer of the specimen signatures marked as "K1a" to "K1c" and is, therefore, a forged signature; The evidence supports the proposition that the signature in question was written by the writer of the specimen signatures marked as "K2a" to "K2c". Pertaining to the

## TABLE 2

WebCode-Test	Conclusions
	writing in question: The evidence supports the proposition that the writing in question was not written by the writer of the specimen writing marked as "K1a" to "K1c" and is, therefore forged writing. The evidence supports the proposition that the writing in question was written by the writer of the specimen writing marked as "K2a" to "K2c".
JYGVH6-524	1.) The evidence supports the proposition that the handwriting on "Q1" was not written by the author of "K1". 2.) The evidence supports the proposition that the handwriting on "Q1" was written by the author of "K2". 3.) The evidence supports the proposition that the signature on "Q1" was not written by the author of "K1". 4.) The evidence supports the proposition that the signature on "Q1" was written by the author of "K2".
K3C3KE-524	The Exhibit K2 known writer also wrote the Exhibit Q1 agreement form, to include the signature. This finding is based upon the agreement in a combination of individualizing handwriting characteristics with the absence of any significant differences. The Exhibit K1 known writer did not write the Exhibit Q1 agreement form or signature. Comparison of the K1 and Q1 writing found significant differences in individualizing handwriting characteristics.
K47TQT-524	Upon completion of an examination and comparison of the exhibit and known standards submitted in this case, it is the opinion of this examiner that the K-2 writer did write both the questioned text and signature appearing on the Q-1 exhibit.
KGC3VU-524	The writer of Item K2a through K2c (Bonnie Craig) wrote all of the questioned writings on Item Q1.
KH8LYG-524	A definite determination could not be made as to whether or not MAGGIE BURKE, the writer of Item 1 (K1a-c), prepared the questioned writing and signature on Item 3 (Q1), due to the limited amount of comparable known writing submitted for examination and characteristics in the questioned writing which could not be accounted for on the basis of the available known writing. However, dissimilarities were observed to indicate that BURKE (K1a-c) may not have prepared the questioned writing and signature on Item 3 (Q1). A definite determination could not be made as to whether or not BONNIE CRAIG, the writer of Item 2 (K2a-c), prepared the questioned writing and signature on Item 3 (Q1), due to the limited amount of comparable known writing submitted for examination and characteristics in the questioned writing which could not be accounted for on the basis of the available known writing. However, significant characteristics in common were observed to indicate that CRAIG (K2a-c) may have prepared the questioned writing and signature on Item 3 (Q1).
KLZRAC-524	(a) No evidence of significance was found to indicate that the questioned signature 'Maggie Burke' and the questioned writing on the honor code agreement (Exhibit Q1) were executed by the K1 (a-c) specimen writer. (b) It has been concluded that the questioned signature 'Maggie Burke' and the questioned writing on the honor code agreement (Exhibit Q1) were executed by the K2 (a-c) specimen writer (Maggie Burke[sic]).
KLZVYG-524	After examination and comparison of the above itemized documents, it is the opinion of this examiner that [sic] wrote and signed the Honor Code Agreement.
L77KXW-524	The questioned hand printing and signature on Item Q-1 was examined visually and compared to the known exemplars of Maggie Burke (K-1a through K-1c) and Bonnie Craig (K-2a through K-2c). Significant differences and few similarities were observed between the questioned writing and the known writing of Maggie Burke. Maggie Burke is eliminated as the writer of the questioned hand printing and signature on item Q-1. Significant similarities and few differences were observed between the questioned writing and the known writing of Bonnie Craig. Bonnie Craig is identified as the writer of the questioned hand printing and signature on Item Q-1.
L9PQ3K-524	Both the content handwriting and the signature on Item Q1 were written by Bonnie CRAIG (K2), not by Maggie BURKE (K1).

TABLE 2

WebCode-Test	Conclusions
LBYHMM-524	MAGGIE BURKE DIDN'T WRITE NOR SIGN Q1. BONNIE CRAIG WROTE Q1. BONNIE CRAIG PROBABLY SIGNED Q1.
LCXM2W-523	The K1 writer (BURKE) has been eliminated as the writer of the handprinting, numerals, and signature on Q1. An opinion of "elimination" is a definitive conclusion with the highest degree of certainty and means that the features present in the comparable portions of the questioned and known documents provide very strong evidence to support non-authorship. The K2 writer (CRAIG) has been identified as the writer of the handprinting, numerals, and signature on Q1. An opinion of "identification" is a conclusion with the highest degree of certainty and means that the features present in the comparable portions of the questioned and known documents provide very strong evidence supporting common authorship.
LDHT7K-523	There are fundamental differences present between the questioned writing and signature in the name "Maggie Burke" on item Q1 and the known signatures and writing samples attributed to Ms. Burke on items K1a-c. The person whose signatures and extended writing appears on items K1a-c (Maggie Burke) is eliminated as the writer or signer of item Q1. There are significant similarities and no fundamental differences present between the disputed signature and writing on Q1 and the signatures and writing attributed on items K2a-c to Bonnie Craig. Ms. Craig (K2a-c) is identified as having signed the name "Maggie Burke" and filled out the honor code agreement portion of item Q1.
LHEEXN-524	It has been concluded that the Bonnie Craig of the known material (Items K2a through K2c) also wrote the hand printing and signature found on the questioned Honor Code Agreement (Item Q1).
LKRVLN-524	Maggie Burke probably did not write the questioned handwritten body or signature on the honor code agreement, 001-A1. Bonnie Craig probably wrote the questioned handwritten body and signature on the honor code agreement, 001-A1. The examination was limited by the amount of known writing of each writer submitted for comparison.
LLZZZB-523	The findings extremely strongly support the proposition that K2 wrote the questioned writing Q1 compared to the proposition that K1 or an unknown person wrote the questioned writing Q1. The findings strongly support the proposition that K2 wrote the questioned signature Q1 compared to the proposition that K1 as well as compared to the proposition that an unknown person wrote the questioned signature Q1.
LLG7DF-524	There was conclusive evidence that Bonnie Craig completed the non-signature handwriting on Q1 and very strong evidence that she made the Q1 signature. There was no evidence to associate Maggie Burke with either the signature or non-signature handwriting on Q1.
LMVQ7Q-524	There is a strong probability that Bonnie Craig wrote the questioned signature on Item Q1. This opinion is based on the notation of significant similarities, no differences, and some absent characteristics between the questioned and known writings submitted. Bonnie Craig wrote the questioned hand printing on Item Q1. This opinion is based on the notation of significant similarities and no differences between the questioned and known writings submitted. There is a strong probability that Maggie Burke did not write the questioned signature on Item Q1. This opinion is based on the notation of significant differences and few similarities between the questioned and known writings submitted. Maggie Burke did not write the questioned hand printing on Item Q1. This opinion is based on the notation of significant differences and few similarities between the questioned and known writings submitted.
LV9HVN-524	Handwriting: On examination, I noted significant similarities in stroke quality, slant and the formation and relative positioning of alphabet letters and numerals between the specimen handwriting of Bonnie Craig in 'K2a' to 'K2c' and the questioned handwriting in 'Q1'. The evidence shows that the writer of the specimen handwriting in 'K2a' to 'K2c' wrote the questioned handwriting in 'Q1'. I noted significant differences in stroke quality, slant and the formation and relative positioning of alphabet letters and numerals between the specimen handwriting of Maggie Burke in 'K1a' to 'K1c' and the questioned handwriting in 'Q1'. The evidence shows that the writer

## TABLE 2

WebCode-Test	Conclusions
	<p>of the specimen handwriting in 'K1a' to 'K1c' did not write the questioned handwriting in 'Q1'. Signature: I found the questioned signature in "Q1" to appear in the cursive form of 'Maggie Burke'. On comparison with the specimen signatures provided by Bonnie Craig in 'K2a' to 'K2c', I noted significant similarities in stroke fluency, slant and the formation and relative positioning of letters between them. The evidence shows that the writer of the specimen signatures in 'K2a' to 'K2c' wrote the questioned signature in 'Q1'. I noted significant differences in stroke fluency, slant and the formation and relative positioning of letters between the specimen signatures of Maggie Burke in 'K1a' to 'K1c' and the questioned signature in 'Q1'. The evidence shows that the writer of the specimen signatures in 'K1a' to 'K1c' did not write the questioned signature in 'Q1'.</p>
M9BDL4-524	<p>Between document marked "Q1" and "k2a" to "k2c" writing and signatures: strong correspondences in respect of design and constructions (inc alignment, proportions and diacritics were identified between the "Q1" and "k2a" to "k2c." Between document marked "Q1" and "k1a" to "k1c" meaningful differences in respect of design and constructions) incl proportions, diacritics and slant were identified between[sic] "Q1" and "k1a" and "k1C". Following conclusions were reached: "Q1" was written and signed by the writer of "k2a" to "k2c". "Q1" was not written and signed by the writer of "k1a" to "k1c".</p>
MBGQBH-524	<p>It was determined that BONNIE CRAIG, known writer of Item 3 (K2 a-c), prepared the questioned writing on Item 1 (Q1), excluding the signature. Due to the presence of characteristics in the questioned writing that are not present in the available known writing, it could not be determined whether MAGGIE BURKE, known writer of Item 2 (K1 a-c), or BONNIE CRAIG, known writer of Item 3 (K2 a-c), prepared the questioned signature on Item 1. However, characteristics in common were observed which indicate that CRAIG, known writer of Item 3 (K2 a-c), may have prepared the questioned signature on Item 1. Furthermore, writing dissimilarities were observed which indicate that MAGGIE BURKE, known writer of Item 2 (K1 a-c), may not have prepared the questioned signature on Item 1.</p>
MGJ7DB-523	<p>The questioned writing (including the signature) on the honor code agreement was written by Bonnie Craig, not by Maggie Burke.</p>
MLD4ZG-524	<p>BONNIE CRAIG WROTE THE HANDPRINTING EXHIBITED ON Q-1. BONNE[sic] CRAIG WROTE THE SIGNATURE EXHIBITED ON Q-1. MAGGIE BURKE DID NOT WRITE THE HANDPRINTING EXHIBITED ON Q-1. MAGGIE BURKE DID NOT SIGN HER NAME EXHIBITED ON Q-1.</p>
MN6X7X-524	<p>[No Conclusions Reported.]</p>
MZU27G-524	<p>1. The questioned writing (excluding the signature) on "Q1" showed sufficient significant differences in handwriting characteristics from the specimen handwriting of "Maggie Burke" (K1) and sufficient significant similarities in handwriting characteristics as the specimen handwriting of "Bonnie Craig" (K2). Hence, I am of the opinion that this questioned handwriting was not written by "Maggie Burke" but was written by "Bonnie Craig". 2. The questioned signature on "Q1" showed sufficient significant differences in handwriting characteristics from the specimen signatures of "Maggie Burke" (K1) and sufficient significant similarities in handwriting characteristics as the specimen signatures of "Bonnie Craig" (K2). Hence, I am of the opinion that this questioned signature was not written by "Maggie Burke" but was written by "Bonnie Craig".</p>
N6P3TG-524	<p>I have found identity in the handwriting characteristics between the writing and signature on the questioned document Q1 and the handwriting sample in the name of Bonnie Craig and in my opinion the questioned writing and signature were written by her.</p>
NBEHHN-524	<p>The writer of Item 2 (2.1-2.3) (K2a-c) (Bonnie Craig) has been identified as the writer of the questioned hand printed honor code agreement as well as the "Maggie Burke" questioned signature appearing on Item 3 (Q1). The range of variation exhibited in the questioned entries and in the known writing contains substantial significant similarities with no significant dissimilarities. In addition, there were no limitations associated with absent characters or quantity of writing. The</p>

## TABLE 2

WebCode-Test	Conclusions
	writer of Item 1 (1.1-1.3) (K1a-c) (Maggie Burke) has been eliminated as the writer of the questioned hand printed honor code agreement as well as the questioned "Maggie Burke" signature appearing on Item 3 (Q1). The range of variation exhibited in the questioned entries and in the known writing contains substantial significant dissimilarities. In addition, there were no limitations associated with absent characters or quantity of writing.
NBNLYT-524	According to the study elements of doubt and provided reference can be concluded that : 1. The text and signature on behalf of Maggie Burke appears in Q1, uniprocendente[sic] not or was not Maggie Burke manuscript according to the reference samples provided. 2. The text and signature on behalf of Maggie Burke appears in Q1, it was uniprocendente[sic] or manuscript by Bonnie Craig according to the reference samples provided on behalf of the said Bonnie.
NH83FA-523	It was found a wide [sic] of individual characteristics of Bonnie Craig in the document identified as Q1, including the sign. There is no individual characteristics of Maggie Burke in the document identified as Q1.
NJ2N7F-524	There are many similarities and no significant differences between the questioned handwriting and the known handwriting of Bonnie Craig. The nature of the similarities is such that, in our opinion, Bonnie Craig is responsible for the specified questioned handwriting. There are a number of similarities and no significant differences between the known handwriting of Bonnie Craig and the signature in the name "Maggie Burke". The nature of the similarities is such that it is highly probable that Bonnie Craig is responsible for the specified questioned signature. By "highly probable" we consider it very unlikely that a person other than Bonnie Craig is resposnible[sic] for the signature in the name "Maggie Burke".
NJ766E-524	K2 (Bonnie Craig) wrote the questioned writings and signature of Maggie Burke on the Q1 document.
NLBMGN-524	IN MY OPINION: 1) THE QUESTIONED WRITING (EXCLUDING THE SIGNATURE) ON THE HONOR CODE AGREEMENT (Q1) WAS WRITTEN BY BONNIE CRAIG (K2) BUT WAS NOT WRITTEN BY MAGGIE BURKE (K1). 2) THE QUESTIONED SIGNATURE ON THE HONOR CODE AGREEMENT (Q1) WAS WRITTEN BY BONNIE CRAIG (K2) BUT WAS NOT WRITTEN BY MAGGIE BURKE (K1).
NLTHCW-524	Craig wrote the questioned hand printing and signature entries on Exhibit 3.
NRZ7RJ-524	The questioned writing on Q1 was written by the writer of K2a to K2c, presented as being written by Bonnie Craig. The questioned signature on Q1 was written by the writer of K2a to K2c, presented as being written by Bonnie Craig.
NWPTEC-524	After an analysis and comparison of the respective material I reached the following conclusion: 3.1 I found the evidence to support the proposition that the handwriting and signature in questioned marked as "Q1" were written by the writer of the specimen material marked as "K2a" to "K2c" and were not written by the writer of the specimen material marked "K1a" to "K1c".
P44VYJ-524	Strong correspondences in respect of design and construction which include letter design, alignment, proportion, slant, initial and final strokes were identified between the questioned writing and signature "Q1" and the specimen writing and signatures on documents marked "k2a-c" to support the proposition that the questioned writing and the signature was written by the author of the documents marked "K2a-c.
PACDGK-524	Bonnie Craig, Item K2, has been identified as the writer of the questioned signature appearing on Item Q1. Craig probably also wrote the remaining questioned hand printing and numerals appearing on Item Q1. Maggie Burke, K1, has been eliminated as the writer of the questioned signature appearing on Item Q1. Burke probably also did not write the remaining questioned hand printing and numerals appearing on Item Q1. The submission of additional hand printing from both Bonnie Craig and Maggie Burke may allow for a more definitive conclusion with regards to

## TABLE 2

WebCode-Test	Conclusions
	the questioned hand printing and numerals. This should include multiple samples of non-request hand printing and numerals such as personal correspondence, school papers, etc. Additional repetitions of the questioned hand printing and numerals may also prove beneficial.
PELMEG-524	Based on the documents submitted, it is my professional expert opinion that the author of the K2a - K2c documents did also author the questioned handwriting on the Q1 documents.
PTN7ZE-524	In our opinion, the questioned handwriting and signature on the honor code agreement /Q1/ were written by K2 /Bonnie Craig/. There are many significant similarities in general characteristics and in individual character types between the questioned item Q1 and the samples of K2. K1 /Maggie Burke/didn't write neither handwriting nor signature.
Q3VYDF-524	It has been determined that the writer of K2, submitted as the known writing of Bonnie Craig, prepared the writing & signature on Q1. It has been determined that the writer of K1, submitted as the known writing of Maggie Burke, did not prepare the writing & signature on Q1.
Q84B2F-523	[No Conclusions Reported.]
QCYCAA-523	Handwriting examination showed that the questioned writing and signature on the test honor code agreement (Item Q1) were written by Bonnie Craig, whose known writings (K2a-c) were examined. Maggie Burke, whose known writing samples (K1 a-c) were examined, did not write any of questioned writing nor questioned signature on the test honor code agreement (item Q1).
QP3TNP-524	^ _ ^
QVMNRE-524	FIRST. The questioned writing that appears on the written honor code agreement (Q1) does not have the same graphic origin in relation to the reference writing that was obtained from Maggie Burke. SECOND. The questioned writing that appears on the written honor code agreement (Q1) does have the same graphic origin in relation to the reference writing that was obtained from Bonnie Craig. THIRD. The questioned signature that appears on the written honor code agreement (Q1) does not have the same graphic origin in relation to the reference signatures that were obtained from Maggie Burke. FOURTH. The questioned signature that appears on the written honor code agreement (Q1) does have the same graphic origin in relation to the reference signatures that were obtained from Bonnie Craig.
RANTNJ-524	Contributor Bonnie Craig is identified as the author of the questioned written entries appearing on Q1.
RV7XB8-523	Maggie Burke: The writer of Exhibit K1 a-c (Maggie Burke) probably did not write the questioned handwritten entries (excluding the questioned "Maggie Burke" signature) on Exhibit Q1; however, due to an insufficient amount of comparable known writing, the evidence falls short of that necessary to support a conclusive opinion. The writer of Exhibit K1 a-c (Maggie Burke) did not write the questioned "Maggie Burke" signature on Exhibit Q1. Bonnie Craig: The writer of Exhibit K2a-c (Bonnie Craig) wrote the questioned handwritten entries and "Maggie Burke" signature on Exhibit Q1.
T3ZGVA-524	Based on the expertise results I conclude that handwriting and signature on the document of item Q1 is written[sic]/signed from the same person that wrote/signed known sample of item K2a-c, and is not written[sic]/signed from the person on the known samples of item k1a-c.
T4VZXB-523	The body of the honor code agreement (Q1) was printed by the same person who hand printed portions of documents labeled K2A, K2B, and K2C. The date of "5/14/15" on the honor code agreement (Q1) was hand dated by the same author of various penned dates and other numerals on K2A, K2B, and K2C. The signature on the honor code agreement (Q1) was penned by the same person who penned the name of Maggie Burke on documents labeled K2A and K2B. This author is the same person who signed the name of Bonnie Craig three (3) times on the document

## TABLE 2

WebCode-Test	Conclusions
	labeled K2C.
T6L7FM-523	It has been concluded that the questioned text and signature appearing on the face of the questioned agreement Q1 were written by the writer of the comparison Bonnie Craig (K2) samples.
T9N4QF-524	In analyzing the handwritten signature and Maggie Burke K1 compared with Q1 handwritten it found that these correspond to a script type printing, slight tilt to the left, with as many times stops or graphics, more proportionate, in lower write speed, syllabic links at the top. In analyzing the handwritten signature of Bonnie Craig and K2, compared with Q1 handwritten, it was found that these correspond to a script type printing, in gently to the right, with less graphics time, disproportions to the top, most writing speed, by the bottom links, aspects when viewed against the material definitely correspond Q1 and these are identified as having been written by Bonnie Craig.
TAJQD6-523	Bonnie Craig (K2) wrote both questioned writing and signature of the honor code agreement.
TBDGJJ-524	It was determined the hand printed test honor code agreement, Q1 (including signature) was written by Bonnie Craig, K2.
TF99U2-524	The questioned and the sample writings are reproductions. It is not possible to detect traces of manipulation and forgery with the procedures of forensic document examination. Features/details of line quality and writing movement are only partially in view. This is not a sufficient basis to draw definite conclusions concerning the genuineness and/or authorship of handwritings. Laboratory examinations of reproductions normally lead to an inconclusive result like "C" (cannot be identified or eliminated). Assuming that we deal with originals in this examination the wording in our report would be: The questioned writing on the honor code agreement was written by Bonnie Craig (K2). The questioned signature on the honor code agreement was written by Bonnie Craig (K2). All identifications imply that an authorship of the other writer (K1) is excluded to the same degree.
TVNAN7-524	Visual examination and comparison of the submitted items, utilizing a hand lens, revealed the following: The questioned agreement and signature in Item #3 (Q1) were written by the writer of the known Bonnie Craig samples in Item #2 (K2), based on substantial significant similarities with no significant differences noted between the questioned and known writing. Therefore, the writer of the known Maggie Burke samples in Item #1 (K1) can be eliminated as the writer of the questioned agreement and signature.
U92VGB-523	Examination of the Q1 document yielded that: the Q1 document was not authored by the same hand as the known exemplars of Maggie Burke thus excluding her as a possible author; the Q1 document was authored by the same hand as the known exemplars of Bonnie Craig thus identifying her as the author; and, this is based on the evidence I have been provided.
UBQCGB-524	Q1 Handwriting: Similarities were noted between the questioned handwriting and the specimen handwriting attributed to Bonnie CRAIG (K2) in terms of pictorial similarity, size and size relationships, construction characteristics, fluency and speed, together with no significant differences. Notwithstanding the limitations imposed by the non-original nature of the specimen and questioned material, I concluded the author of the specimen handwriting attributed to Bonnie CRAIG (K2 author) wrote the questioned handwriting (Q1). Q1 Signature: Similarities were noted between the questioned signature and the specimen signatures attributed to Bonnie CRAIG (K2) in terms of pictorial similarity, size and size relationships, construction characteristics, fluency and speed, together with no significant unaccounted for differences. Accordingly, I concluded the author of the specimen signatures attributed to Bonnie Craig (K2) wrote the questioned signature (Q1).
UFGY2H-524	Findings strongly support the preposition[sic] that the questioned text (signature) was not written by the same person that wrote (signed) K1. Therefore it is our opinion that the questioned text (signature) was not written (signed) by K1. Findings strongly support the preposition[sic] that the questioned text (signature) was written by the same person that wrote (signed) K2. Therefore it is our opinion that the questioned text (signature) was written (signed) by K2.



## TABLE 2

WebCode-Test	Conclusions
UK3AM3-524	<p>1)The questioned handwriting on "Q1" showed sufficient significant differences in handwriting characteristics from the specimen handwriting "K1a", "K1b" and "K1c". Hence, I am of the opinion that the questioned handwriting was not written by the writer of the specimens (Maggie Burke). 2)The questioned handwriting on "Q1" showed sufficient significant similarities in handwriting characteristics as the specimen handwriting "K2a", "K2b" and "K2c". Hence, I am of the opinion that the questioned handwriting was written by the writer of the specimens (Bonnie Craig). 3)The questioned signature on "Q1" showed sufficient significant differences in handwriting characteristics from the specimen signatures "K1a", "K1b" and "K1c". Hence, I am of the opinion that the questioned signature was not written by the writer of the specimens (Maggie Burke). 4)The questioned signature on "Q1" showed similarities in handwriting characteristics as the specimen signatures "K2a" and "K2b". However, as these were simulated specimen signatures, it was not possible to form an opinion to ascertain the authorship of the questioned signature.</p>
UL94UM-524	<p>3. What would be the drafting of the conclusions in the report .a. to. Handwriting analysis and comparison that has to do with scriptural obrante filled in Q1, it is determined that uniprocede scripturally against contributions signed by K2a, K2b and K2C . B. Handwriting analysis and comparison has to be made to the firm in Q1 obrante, to name Magguie BURKE, it is determined that scripturally uniprocede scriptural contributions Uniprocedencia face marked by K2a, K2b and K2C. C. Handwriting analysis and comparison that has to do with scriptural obrante filled in Q1, it is determined that uniprocede scripturally against contributions signed by K1a, K1b and K1c. D. Handwriting analysis and comparison has to be made to the firm in Q1 obrante, to name Magguie[sic] BURKE, it is determined that NO uniprocede scripturally against contributions signed by K1a, K1b and K1c. [sic]</p>
UL94W9-523	<p>It is my opinion the Maggie Burke signature and the writing on the Honor Code Agreement, designated Q1, was written by the writer of the K2 exemplars. It is further my opinion the Maggie Burke signature and the writing on the Honor Code Agreement, designated Q1, was not written by the writer of the K1 exemplars.</p>
UR4JZM-524	<p>a) The writer of Item K1 did not write the questioned writing and signature on Item Q1. b) The writer of Item K2 wrote the questioned writing and signature on Item Q1.</p>
UUMP6C-524	<p>Handwriting: In view of the significant similarities observed between the questioned and specimen handwriting, the questioned handwriting in "Q1" (Agreement) was written by Bonnie Craig, the writer of the known specimen handwriting in "K2a" to "K2c". In view of the significant differences observed between the questioned and specimen handwriting, the questioned handwriting in "Q1" (Agreement) was not written by Maggie Burke, the writer of the known specimen handwriting in "K1a" to "K1c". Signature: In view of the significant similarities observed between the questioned and specimen signatures, it is the questioned signature in "Q1" (Agreement) was written by Bonnie Craig, the writer of the known specimen signatures in "K2a" to "K2c". In view of the significant differences observed between the questioned and specimen signatures, the questioned signature in "Q1" (Agreement) was not written by Maggie Burke, the writer of the known specimen signatures in "K1a" to "K1c".</p>
V23UL3-524	<p>In my opinion I conclude that Bonnie Craig was the author of the writing and signature on Q1 (Agreement).</p>
V6ZCRH-524	<p>The questioned writing (excluding the signature) on the honor code agreement, was written by Bonnie Craige[sic] (k2). The questioned signature was written by Bonnie Craige[sic] (k2).</p>
V9E4HB-524	<p>I am of strong opinion that the questioned writing on on[sic] document Q1 was prepared by the writer of Bonnie Craig K2. This is because the individuality characteristics of K2 are in agreement with Q1. No differences are present except for natural variations. Unexplained variations of characteristics are far outweighed by combined effect of the agreement in all other details.</p>
VF64QC-524	<p>Bonnie Craig wrote the questioned writing on the honor code agreement of Q1. Bonnie Craig wrote the questioned signature on the honor code agreement of Q1.</p>

## TABLE 2

WebCode-Test	Conclusions
VJLPZB-523	In as much as it is possible to examine digital files in lieu of the original documents, it is my opinion that Bonnie Craig (K2) wrote the questioned writing, signature, and date on Q1.
VLNDF-523	1. 1. Maggie Burke a) In my opinion, the evidence provides very strong support for the proposition that the questioned handwriting sample (Q1) was not written by the writer of the specimen material (K1). b) In my opinion, the evidence provides qualified support for the proposition that the questioned 'Maggie Burke' signature (Q1) was not written by the writer of the specimen material (K1). 2. Bonnie Craig c) In my opinion, the evidence provides very strong support for the proposition that the questioned handwriting sample (Q1) was written by the writer of the specimen material (K2). d) In my opinion, the evidence provides qualified support for the proposition that the questioned 'Maggie Burke' signature (Q1) was written by the writer of the specimen material (K2).
VNCAXY-524	There are significant similarities in respect of the element of style and execution between the questioned writing on document marked as "Q1" and the specimen writing on document marked as "K2a" to "K2c". There are significant similarities in respect of letter design and construction between the questioned signature on document marked as "Q1" and the specimen signature on document marked as "K2a" to "K2c". The evidence to support proposition that the disputed writing on the document marked as "Q1" was written by the of most of the specimen writing on document marked as "K2a" to "K2c". The evidence also support that the authorship of the questioned signature on the document marked as "Q1" is the same author of the specimen signature on the documents marked as "K2a" to "K2c". [sic]
VQFUYE-524	The questioned document marked Q1 was authored by the person who provided specimen documents marked K2a-c. K1a-c specimen were eliminated.
VWLMTA-523	The evidence states that the handwriting Q1 was produced by the author of handwriting K2. The evidence states that the signature Q1 was produced by the author of signatures & handwritings K2. The evidence states that the handwriting Q1 was not produced by the author of handwriting K1. The evidence states that the signature Q1 was not produced by the author of signatures & handwritings K1. [sic]
W39NXT-524	1. Difference were identified between the questioned hand writing and signature on document marked "Q1" and specimen hand writing and signatures on documents marked K1a, K1b and K1c with regards to elements of style and execution indicating that they were not written by the same author. 2. Similarities were identified between the questioned hand writing and signature on document marked "Q1" and specimen hand writing and signatures on documents marked K2a, K2b and K2c with regards to elements of style and execution indicating that they were written by the same author.
W4NZGJ-524	Q1 Bonnie Craig (K2) Handwriting comparison Q1 3.1 The questioned handwriting on Q1 was examined and compared with the control handwriting on K2 written by Bonnie Craig. The questioned handwriting and the control handwriting displayed similarities in writing features in terms of the structural details and writing movements of the English letters (B, M, d, g, i, k, n, p) and numerals (4, 5, /), and stroke connections ('fo', 'ee', 'we'). In view of the above finding, I am of the opinion that the questioned handwriting on Q1 was written by Bonnie Craig who wrote the control handwriting on K2. Bonnie Craig (K2) Signature comparison Q1 3.2 The questioned signature on Q1 was examined and compared with the control signatures on K2 written by Bonnie Craig. The questioned signature and the control signatures displayed similarities in writing features in terms of the design of signatures, structural details, writing movement and stroke connection of the English letters (B, M, a, g, i, k). In view of the above finding, I am of the opinion that the questioned signature on Q1 was written by Bonnie Craig who wrote the control signatures on K2. Maggie Burke (K1) Handwriting Comparison Q1 3.3 The questioned handwriting on Q1 was examined and compared with the control handwriting on K1 written by Maggie Burke. The questioned handwriting and the control handwriting displayed discrepancies in writing features in terms of the structural details and writing movements of the English letters (B, M, a, d, f, g, i, k, m, n, p, y) and numerals (4, 5, /), stroke connections ('am', 'fo', 'ee', 'we'), and slanting of the letters. In view of

## TABLE 2

WebCode-Test	Conclusions
	the above finding, I am of the opinion that the questioned handwriting on Q1 was not written by Maggie Burke who wrote the control handwriting on K1. Maggie Burke (K1) Signature comparison Q1 3.4 The questioned signature on Q1 was examined and compared with the control signatures on K1 written by Maggie Burke. The questioned signature and the control signatures displayed discrepancies in writing features in terms of the structural details, writing movement of the English letters (B, M, a, g, l, k, r), stroke connection, slanting and relative size of letters. In view of the above finding, I am of the opinion that the questioned signature on Q1 was not written by Maggie Burke who wrote the control signatures on K1.
W787M9-524	After the careful examination and comparison of questioned signature and handwriting on questioned items marked as Q1 with routine signatures and handwriting of Maggie Burke (Marked as K1c) and Bonnie Craig (Marked as K2c) and with dictated signatures and handwriting exemplars of Maggie Burke (Marked as K1a & K1b) and Bonnie Craig (Marked as K2a & K2b), it is concluded that the questioned signature and the questioned handwriting on questioned item marked as Q1 is written by Bonnie Craig. Hence, Bonnie Craig is the author of questioned signature and questioned handwriting on questioned item marked as Q1.
W83RDE-523	IN MY OPINION, IT WERE FOUND THAT, THE HANDPRINTING AND SIGNATURE ON THE HONOR CODE AGREEMENT (Q1) WERE WRITTEN BY BONNIE CRAIG (K2) AND NOT BY MAGGIE BURKE (K1) BECAUSE Q1 AND K2 SHARED THE SAME INDIVIDUAL CHARACTERISTICS.
WARXXB-524	The questioned handwriting and signature of the document in question Q1, were not made by Maggie Burke. The questioned handwriting and signature of the document in question Q1, were performed by Bonnie Craig.
WDUPD3-524	The body of the handwritings on test honor code agreement Q1 demonstrate consistent and significant differences when compared with the writings of Maggie Burke K1 (a – c). Conversely, I found many similarities and no significant differences when the questioned handwritings Q1 are compared with the handwritings of Bonnie Craig K2 (a – c). I have concluded that there is very strong positive evidence to support the view that Bonnie Craig rather than Maggie Burke completed the body of the handwritings of the test honor code agreement, Q1. The signature on the test honor code agreement Q1 contains only a small amount of comparable material. This signature is different from the signatures of Maggie Burke available to me, K1 (a – c). However, the writing of the questioned signature Q1 demonstrates close similarities when compared to the writings of Bonnie Craig K2 (a – c). I have concluded that there is strong positive evidence to support the view that the questioned signature on the test honor code agreement Q1 was made by Bonnie Craig rather than Maggie Burke.
WE28AD-524	In conclusion, I found the evidence to provide very strong support for the proposition that [sic] the writing and signature in question on the document marked "Q1" was not written by the writer of the specimens marked "K1(a-c)". Furthermore, I found the evidence to provide very strong support for the proposition that the writing and signature in question on the document marked "Q1" was written by the writer of the specimens marked "K2(a-c)".
WG7K8E-524	THERE WERE SIGNIFIANT SIMILARITIES BETWEEN THE QUESTIONED HANDWRITTEN PASSAGES AND SIGNATURE IN Q1, AND THOSE KNOWN SPECIMEN HANDWRITING AND SIGNATURES IN K2a- K2c (BONNIE CRAIG), RESPECTIVELY. FOR HANDWRITING, THE LETTER SIZE, SLANT VARIATION RANGE, FORAMTION OF LETTERS AND NUMERALS 'k, i, f, d, g, y, 5,4', THE TOP STROKE ALIGNMENT IN THE DATES, WERE SIGNIFICANTLY SIMILAR. THESE FEATURES DIFFERED SIGNFICANTLY SIMILAR. THESE FEATURES HOWEVER, DIFFERED SIGNIFICANTLY TO THOSE IN KNOWN SPECIMENS K1a-K1c (MAGGIE BURKE). [sic]
WRULHM-524	The questioned handwritten entries reproduced on Exhibit 3 (honor code agreement) were written by the author of Exhibits 2(1-3), Bonnie Craig.

## TABLE 2

WebCode-Test	Conclusions
WUVUHQ-524	<p>3.1 Strong correspondences were identified between the questioned writing on the document marked "Q1" and the specimen writing on the documents marked as "K2a" to "K2c" in respect of the discriminating elements of design and construction, such as letter design, proportions, alignment, spacing and placement. The evidence supports the proposition that the writing on the document marked "Q1" was written by the writer of the specimen writing on the documents marked as "K2a" to "K2c". 3.2 Significant differences were identified between the questioned writing on the document marked "Q1" and the specimen writing on the documents marked as "K1a" to "K1c" in respect of the discriminating elements of design and construction, such as letter design, proportions, alignment, spacing and placement. The evidence supports the proposition that the writing on the document marked "Q1" was not written by the writer of the specimen writing on the documents marked as "K1a" to "K1c". 3.3 Strong correspondences were identified between the questioned signature on the document marked "Q1" and the specimen signatures on the documents marked as "K2a" to "K2c" in respect of the discriminating elements of design and construction, such as letter design, proportions, alignment, spacing and placement. The evidence supports the proposition that the signature on the document marked "Q1" was written by the writer of the specimen signatures on the documents marked as "K2a" to "K2c". 3.4 Significant differences were identified between the questioned signature on the document marked "Q1" and the specimen signatures on the documents marked as "K1a" to "K1c" in respect of the discriminating elements of design and construction, such as letter design, proportions, alignment, spacing and placement. The evidence supports the proposition that the signature on the document marked "Q1" was not written by the writer of the specimen signatures on the documents marked as "K1a" to "K1c".</p>
X6QEAH-524	<p>SIGNATURE AND TEXTS DUBITADO Signatures and texts K1a, K1b, K1c and K2a, K2b and K2C. SIGNATURE AND TEXTS undoubted TECHNICAL DESCRIPTION OF PROCEDURES USED: In the process of analysis and comparison, the following stages were completed: Observation, Comparison, Description of distinctive features, Judgment identity. Report on the degree of acceptance by the scientific technical community, the procedures used. It is accepted by the forensic community, documentología area and forensic graphology, in our country and in other crime labs worldwide; because it meets the technical procedures themselves using equipment and instruments for this type of analysis. Similarly, because it is used as a support, the standard samples to compare concepts and conclusions and issue no error margin of appreciation. 6. Instruments and state employees thereof at the time of examination. 10X magnifier. CLEAR AND ACCURATE DESCRIPTION OF TECHNICAL PROCEDURES its technical- scientific activity. Analysis Grafológico. He proceeded to perform the analysis to the scriptural signs and signatures (K1 to Kc) and texts of doubt (Q1), taking into account issues and sub-issues graphics such as start point and finish, calligraphic style, linear displacement, proportion morfolétrica construction, rhythm and dynamics scriptural, tilt, relative size of the strokes, movements (flexors, extensors, adductors and abductors), pressure connections, flow and finish. Collation, could establish that the signatures and printed texts in the document have obvious differences in various aspects of morphology, structure and dynamics, off the scriptural samples are then made; It is indicating that there is no scriptural uniprocedencia. That is, firms certainly have no identity, graphic gesture Marggie Mr. Burke. Here are some of the discrepancies observed: In the process of analysis, it was found that the graphical aspects, scriptural speed and rhythm, show differences. The start and finish areas of signatures confronted show dissimilarity in form and location. The direction of movements, which cause some of the signs constituting texts and compared the signatures do not match. Symbols confronted, differ in other respects as a proportion, graphics pulses, variation in curvature and angularity of the strokes and arrangement of the signs relative to the graphics area. Interpretation of Results. According to handwriting analysis and comparison made, unscriptural uniprocedencia was found between Q1 document with K1a, K1b and K1c documents. According to handwriting analysis and comparison made, scriptural uniprocedencia was found between Q1 con K2a , K2b y K2 c. [sic]</p>
X6WD27-524	<p>The questioned writing and signature on Item 1 (Q1) were prepared by BONNIE CRAIG, whose known writing appears on item 3 (K2a-c).</p>
XCCDWA-524	<p>The questioned writing (excluding the signature) on the honor code agreement was written by Bonnie Craig. The individual being the source of known writings: item K2a-c. The questioned</p>

## TABLE 2

WebCode-Test	Conclusions
	signature on the honor code agreement was also written by Bonnie Craig, the individual indicated above.
XD8WXB-524	A number of similarities were observed between the questioned writing and the specimen material attributed to Bonnie Craig. These similarities were in such features as writing style, size and size relationships, slope and individual letter constructions. Based on these similarities, it is my opinion that the author of the specimen material attributed to Bonnie Craig completed the questioned handwriting. The questioned signature does not follow the signature style seen in the specimens attributed to Maggie Burke. A number of similarities were observed between the questioned signature and the request specimen signatures by Bonnie Craig. These included both gross and subtle features such as [sic] size, positioning, baseline habits and individual letter constructions. Based on these similarities it is my opinion that the author of the specimen material attributed to Bonnie Craig completed the questioned signature.
XNQ7L6-524	It was determined that Bonnie Craig, the known writer of Item 3 (K2a- c), prepared the questioned hand printing and signature on Item 1 (Q1). It was determined that Maggie Burke, the known writer of Item 2 (K1a- c), did not prepare the questioned hand printing and signature on Item 1 (Q1).
XPZFE2-524	The Item 1 (Q1) questioned writing and signature were prepared by Bonnie Craig, the writer of Item 3(K2a-c). The Item 1 (Q1) questioned writing and signature were not prepared by Maggie Burke, the writer of Item 2(K1a-c).
YBX4J3-524	It was determined that the item 1(Q1) hand printing was prepared by BONNIE CRAIG, writer of item 3(K2a-c). A definite determination could not be reached whether the item 1(Q1) signature and date were or were not prepared by either of the known writers due to the presence of unexplained characteristics, the limited nature of the date entry, and the limited quantity of undictated known writing submitted for examination purposes. However, similarities were observed that indicate BONNIE CRAIG, writer of item 3(K2a-c), may have prepared the item 1(Q1) signature and date. In addition, dissimilarities were observed that indicate MAGGIE BURKE, writer of item 2(K1a-c), may not have prepared the item 1(Q1) signature and date.
YJAABZ-523	Examination / comparison of dictated request handprinting and other known handprinting determined K-2 to be the writer of both the statement and the signature.
YQQND6-524	Thre[sic] questioned writing and signature on the honor code agreement were written by Bonnie Craig.
Z492JB-523	Comparison examination revealed conclusive similarities to support the opinion that the writer of Known writings K2(a-c), Bonnie Craig, wrote the hand printed content and "Maggie Burke" signature on Q1.
Z4VEE4-524	It was determined that the questioned hand printing and signature on Item 1 (Q1) was prepared by BONNIE CRAIG, the writer of Item 3 (K2a-c).
Z7XBTC-524	The writings and the signature on Q1 were not written/signed by Maggie Burke. The writings and the signature on Q1 were written/signed by Bonnie Creig. [sic]
ZETDXA-523	The individual who wrote the exemplars identified as K2 is the individual whose printing and writing appears on the honor code agreement, Q-1.
ZHRRHD-524	Student Bonnie craig ( K2 )wrote the questioned writing and the question signature on the honor code agreement.
ZHWQB3-524	It was determined that Maggie Burke, writer of Item 2 (K1a-c), did not prepare the questioned writing on Item 1 (Item Q1), excluding the signature and date. It was determined that Bonnie Craig, writer of Item 3 (K2a-c), prepared the questioned writing on Item 1 (Item Q1), excluding the signature and date. A definite determination could not be reached whether Maggie Burke, writer of Item 2 (K1a-c), or Bonnie Craig, writer of Item 3 (K2a-c), did or did not prepare the questioned

TABLE 2

WebCode-Test	Conclusions
	signature and date on Item 1 (Item Q1) due to the limited number of known signatures, the limited date area, and handwriting characteristics not accounted for in the available known writing. However, handwriting characteristics were observed which indicate that Maggie Burke, writer of Item 2 (K1a-c), may not have prepared the questioned signature and date on Item 1 (Item Q1). In addition, handwriting characteristics were observed which indicate that Bonnie Craig, writer of Item 3 (K2a-c), may have prepared the questioned signature and date on Item 1 (Item Q1).
ZLTERA-524	As a result of examination and comparison based solely on the material submitted and within the limitations imposed by examination of photographs in lieu of original documents, the following conclusions and observations are opinions based upon my experience, education and training and are as follows: 1) The questioned writing present on the honor code submitted in exhibit Q1 was written by the author of K2a-c (Bonnie Craig). 2) Maggie Burke (K1a-c) can be eliminated as writing the questioned writing on Q1 as Bonnie Craig was identified (K2a-c). 3) The questioned signature present on the honor code in exhibit Q1 was written by the author of K2a-c (Bonnie Craig). 4) The questioned signature on the honor code in exhibit Q1 was not written by the author of K1a-c (Maggie Burke).
ZM3TP3-523	Both the signature and the content on the honor code agreement were written by Bonnie Craig (K2).
ZPUMVK-523	1. Inter-comparison examination and analysis between the Questioned handwriting and Questioned "Maggie Burke" signature appearing on Item Q-1 and the handwriting and Questioned "Maggie Burke" signature exemplars (reportedly) authored and provided by Maggie Burke appearing on Items K1a-c revealed numerous dissimilarities in individual handwriting and signature characteristics and habits. Based on the dissimilarities in individual handwriting and signature characteristics and habits, it is the opinion of this author that the evidence is very persuasive, yet some critical feature or quality is missing so that an elimination is not in order; however, the examiner is virtually certain that the Questioned handwriting and Questioned "Maggie Burke" signature appearing on Item Q-1 and the handwriting and Questioned "Maggie Burke" signature exemplars (reportedly) authored and provided by Maggie Burke appearing on Items k1a-c do not share common authorship. 2. Inter-comparison examination and analysis between the Questioned handwriting and Questioned "Maggie Burke" signature appearing on Item Q-1 and the handwriting and Questioned "Maggie Burke" signature exemplars (reportedly) authored and provided by Bonnie Craig appearing on Items K2a-c revealed numerous similarities in individual handwriting and signature characteristics and habits. Based on the similarities in individual handwriting and signature characteristics and habits, it is the opinion of this author that the evidence is very persuasive, yet some critical feature or quality is missing so that an identification is not in order; however, the examiner is virtually certain that the Questioned handwriting and Questioned "Maggie Burke" signature appearing on Item Q-1 and the handwriting and Questioned "Maggie Burke" signature exemplars (reportedly) authored and provided by Bonnie Craig appearing on Items K2a-c share common authorship.
ZWRAP6-523	Based on the examination and comparison of Exhibit Q1 with Exhibits K1a, K1b, K1c, K2a, K2b, and K2c, the following has been determined: Bonnie Craig (K2) wrote the questioned hand printed, signature, and date entries on Exhibit Q1. Maggie Burke (K1) did not write the questioned hand printed, signature, and date entries on Exhibit Q1.
ZZBKA3-524	Bonnie Craig (K2) wrote the questioned handwriting and "Maggie Burke" signature on Exhibit Q1.

# Additional Comments

TABLE 3

WebCode-Test	Additional Comments
26K6Z9-523	It is possible that more definitive opinions may be reached regarding the handwriting comparison with the submission of the original document depicted in Item Q1 and additional known writing from Maggie Burke and Bonnie Craig. Contact the Forensic Document Unit for assistance prior to the collection of additional known writing. Images of the submitted items are being retained by the Forensic Document Unit. Definitions of Handwriting Opinions: The opinion "highly probable" means that the evidence contained in the handwriting is very persuasive, yet some critical feature or quality is missing so that an identification is not in order. However, the examiner is virtually certain that the questioned and known writings were written by the same individual. The opinion "highly probable not" means that the evidence contained in the handwriting is very persuasive, yet some critical feature or quality is missing so that an elimination is not in order. However, the examiner is virtually certain that the questioned and known writings were not written by the same individual.
3LN2WC-523	A number of very strong similarities with no fundamental dissimilarities were observed between the Questioned handwriting and the specimen writing attributed to Bonnie Craig. These similarities included letter formations and proportions, connection as well as spacing. No similarities and fundamental dissimilarities were observed between the specimen handwriting of Maggie Burke and the questioned handwriting. Due to these dissimilarities Ms. Burke can be eliminated as been the author of the Q1 document. The Questioned "Maggie Black" signature appears naturally and fluently executed. A number of strong similarities were observed between this questioned signature and the specimen signature in the same name, written by Bonnie Craig. The natural/genuine signature of Maggie Black bears no similarity to that of the questioned signature. [sic]
4JYRMB-524	Good, fair, straight-forward handwriting problem.
4K6CAC-524	The examinations were limited by the reproduction nature of the documents and (intrinsically) by the small amount of writing in the questioned signature. The findings expressed above are subject to confirmation and possible strengthening following submission for examination of the original questioned and specimen documents. Submission for examination of further specimen handwriting of Bonnie Craig in cursive (connected) script including her normal handwriting, signatures and signatures in the name "Maggie Burke" may also assist in this regard. Submission of the original questioned document would also allow examination of the questioned documents for the possible presence of writing impressions using the Electrostatic Detection Apparatus (ESDA). Such writing impressions if detected can provide further information about the origins of questioned documents. Further examinations of the original questioned document that may be of value include comparative examination of the ink of various entries on the document to determine whether one or more than one distinguishable inks are present and examination for the presence of latent fingerprints.
4MPHFZ-524	In order to establish that a particular person wrote a questioned writing, an examination with known genuine writings must show substantial agreement in sufficient handwriting characteristics to identify the maker and eliminate the possibility of any other writer. The handwriting characteristics that are evaluated include line quality, pressure patterns, rhythm, slant, size and proportions, utilization of spatial alignment, initial and terminal strokes, writing speed, skill level, letter forms, types of connectors, method of construction, and pattern formation. I am willing to testify as to these facts before a court of law and support my opinion in Court.
8BN7JP-523	Our lab doesn't use the conclusion "was written by" or "was not written by", because in our opinion there will always be a hypothetical doubt.
8LCVM6-523	Providing proficiency tests in hand printing is beneficial. However, hand printing usually requires more exemplars than what is normally provide by CTS. For future CTS hand printing proficiency tests, please include an additional page (total of 4 knowns) of comparable hand printing to the hand printing on the questioned document.

TABLE 3

WebCode-Test	Additional Comments
93U9FM-524	FOR COMPARATIVE TECHNICAL ANALYSIS TOOK IN TO ACCOUNT THE MORPHOSBSTRUCTURAL[sic] AND DYNAMICS OF THE STROCKES[sic] THAT MAKE UP THE DISPUTED PHOTOGRAPHS AND PATTERNS RELATED TO INITIATIONS AND TERMINATIONS, FLEXION AND EXTENSION, PROPORTIONALITY SPONTANEITY, TILT, GENERAL CONFIGURATION, BUILDING LETTERS AND NUMBERS, LINKS, PACE, TURN AND FINISH OF THE PATHS.
A3LP6N-524	Included would be an entire list and definitions of all possible opinions and the selected opinions pertaining to the case bolded. If court testimony is required, please notify this examiner at least two weeks prior to such so that court demonstrative charts can be prepared. The evidence (K1 a-c; K2 a-c; and Q1) listed on invoice# Q111646 will be forwarded to Quality Assurance Unit.
AA4U8X-524	any additional comemntario[sic]
ATYMTV-524	a. Should additional Known handwriting samples from Bonnie Craig, both requested and non-requested, be obtained, and if requested, additional examinations will be conducted in this matter. b. Should additional "Maggie Burke" signature exemplars be obtained from Bonnie Craig, and if requested, additional examinations will be conducted in this matter.
AU8WKT-523	I noted that K1 and K2 shared similar class characteristics, but fundamental dissimilarities were observed in the spacing, slant, diacritics and the numerals.
CPVLUA-524	In order to conduct a complete analysis regarding the signatures in question, a sufficient amount (15-20) of course-of-business (Collected) signatures of the student (Bonnie Craig), on any (undisputed) document, such as bank documents, invoices, receipts, claim forms, letters etc, relative to the date of the documents in question, should be obtained and forwarded.
EHJE3W-524	The findings were made through the application of the principle of ACE (Analysis, Comparison and Evaluation), the fundamental principle underlying handwriting and signature examination.
ER7FKR-524	An alternative approach using propositions would be as follows: Assumptions: The samples provide an accurate representation of the abilities of the writers showing their normal and habitual motor patterns including variation in those habits. HW-H1: the writer of the specimen handwriting on K2 wrote the questioned handwriting on Q1. HW-H2: someone other than the writer of the specimen handwriting on K2 wrote the questioned handwriting on Q1. Opinion 1: The observed findings provide extremely strong support for HW-H1, rather than HW-H2. Sig-H1: the writer of the specimen signatures on K2 wrote the questioned signature on Q1. Sig-H2: someone other than the writer of the specimen signature on K2 wrote the questioned signature on Q1. Opinion 2: The observed findings provide extremely strong support for Sig-H1, rather than Sig-H2. Disclaimer: These opinions outlined above are based on the specific samples and information provided, as well as the declared set of propositions. If any of this should change, and particularly if some other set of propositions is of interest, then a re-evaluation will be required and the opinion may also change.
F7MTDC-524	The current specimen signatures are quantitatively unsatisfactory for a complete examination to be conducted. Therefore, the procurement of sufficient (15-20) of course-of-business (collected) signatures of the student on any (undisputed) document, such as letters, school books etc. relative to the date of the documents in question, are requested for re-examination purpose.
FFRPBN-524	I found many differences between the questioned documents and the hand printing exemplar, K1a-c, of Maggie Burke as well as few similarities. I found many similarities and no significant differences between the questioned document, Q1, and exemplars of Bonnie Craig, K2a-c.
FQEUBZ-524	Our laboratory use a nine point scale of conclusions.
GBWR9X-523	The term "highly probable" is a published standard term for stating conclusions and defined as meaning that the evidence is very persuasive, yet there is some critical feature or quality missing so that an identification/elimination is not in order due to some limiting factor. In this examination the



## TABLE 3

WebCode-Test	Additional Comments
	<p>limiting factor was all specimens were of photographic/digital reproductions and no actual original documents were provided for examination. My professional opinions are based upon a reasonable degree of certainty in accordance with my skill, training, education, experience and knowledge, and when presented with the originals of the documents that were the subject of this examination my findings and conclusions may be confirmed or modified.</p>
H7ZW7V-524	<p>If you wish to continue your investigation from a handwriting standpoint, it might be beneficial to collect additional verbatim exemplars from both subjects for comparison. Furthermore, extended normal course of business writings can also be submitted from both subjects for comparison.</p>
HNH6YJ-523	<p>Additional examinations - ESDA and VSC</p>
JRCC2R-524	<p>Examinations were conducted and reported using the Answer Key requested by CTS specific to this proficiency. However, since the questioned date consisted entirely of numbers and there are not numbers included in the body of the questioned hand printing, the numeric date would be compared and reported separately, as was done with the signature. The wording of the report issued by the [Laboratory] Questioned Document Examiner would read as follows if the answers were not limited by the Proficiency Provider: Results of Laboratory Examination: Handwriting comparisons between the known writing depicted in K2a, K2b and K2c (Item 2) and the questioned hand printing and signature depicted on Q1 (Item 3) revealed Bonnie Craig produced the questioned hand printing and signature. (Identification) Handwriting comparisons between the known writing depicted in K2a, K2b and K2c (Item 2) and the questioned numeric date depicted on Q1 (Item 3) revealed there are indications Bonnie Craig may have produced the questioned numeric date. (Indications May) Handwriting comparisons between the known writing depicted in K1a, K1b and K1c (Item 1) and the questioned hand printing and signature depicted on Q1 (Item 3) revealed it is probable Maggie Burke did not produce the questioned hand printing and signature. (Probable Did Not) Handwriting comparisons between the known writing depicted in K1a, K1b and K1c (Item 1) and the questioned numeric date depicted on Q1 (Item 3) revealed there are indications Maggie Burke may not have produced the questioned numeric date. (Indications May Not) Interpretation: The following descriptions are meant to provide context to the opinions reached in this report. Every type of conclusion may not be applicable in every case or for every exam type. Identification (definite conclusion of identity), this is the highest degree of confidence expressed by Forensic Document Examiners. The examiner has no reservations whatsoever, and although prohibited from using the word "fact," the examiner is certain, based on evidence revealed during the examination. Highly probable did (strong probability, very probable), the evidence is very persuasive, yet some critical feature or quality is missing so that an identification is not in order; however, the examiner is virtually certain based on evidence revealed during the examination. Probable did, the evidence is persuasive, yet critical features or quality is missing. The examiner is certain based on evidence revealed during the examination. During examinations, features were examined of significance and are in agreement between the questioned and known evidence; however, it falls short of the highly probable degree of confidence. Indications may have (evidence to suggest), the evidence is persuasive, however many critical features or quality are missing. During examinations, features were examined which are of significance and are in agreement between the questioned and known evidence, however, it falls very short of the highly probable degree of confidence. No conclusion (inconclusive, indeterminable), this is the zero point of the confidence scale. It is used when there are significantly limiting factors, such as disguise in the questioned and/or known evidence or a lack of comparable features and therefore no conclusion can be reached. Indications may not have, the evidence is persuasive, however many critical features or quality are missing. During examinations, features were examined which are of significance that are not in agreement between the questioned and known evidence; however, it falls very short of the highly probable degree of elimination. Probable did not, the evidence is persuasive, yet critical features or quality is missing. The examiner is certain based on evidence revealed during the examination. During examinations, features were examined of significance that are not in agreement between the questioned and known evidence; however, it falls short of the highly probable degree of elimination. Highly probable did not (strong probability did not), the evidence is very persuasive, yet some critical feature or quality is missing so</p>

TABLE 3

WebCode-Test	Additional Comments
	that an elimination is not in order; however, the examiner is virtually certain based on evidence revealed during the examination. Elimination, this is the highest degree of confidence expressed by Forensic Document Examiners. The examiner has no reservations whatsoever, and although prohibited from using the word "fact," the examiner is certain, based on evidence revealed during the examination.
JXY7W4-524	In respect of the specimen signatures marked as "K2a" and "K2b": It must be noted however that these "signatures" were written by the author purported to be one "Bonnie Craig", this is not the persons' natural signature which is not desirable for an objective examination. However, they were not entirely excluded from the examination. I identified strong corresponding individual features in respect of inter alia letter design, size, slant and execution amongst the specimen signatures (written as "Maggie Burke") marked "K2a" and "K2b" and the "course of business" signatures (written as "Bonnie Craig") marked "K2c". The signature in question (purported to be "Maggie Burke") displays strong corresponding features in respect of inter alia letter design, size, slant and execution with the specimen signatures (written as "Maggie Burke") marked "K2a" and "K2b".
LDHT7K-523	Although there were fewer signature samples of Ms. Burke than I would normally like to work with, I felt that the fundamental differences were numerous and there was no need for a weaker opinion. Similarly, I feel that the significant similarities and lack of fundamental differences as it relates to the writing of Ms. Craig, were very strong and the evidence was overwhelming.
LV9HVN-524	The photographs used for the examination are assumed to be true and accurate reproductions of the original documents.
MZU27G-524	The examination was based on comparison of handwriting characteristics such as line quality, formation of letters and connection stroke between the questioned handwriting/ questioned signature and the specimen handwriting/ specimen signature respectively[sic].
P44VYJ-524	The evidence support the proposition that the writing and signature in question "Q1" was not written by the author of specimen writing and signatures on the documents marked "K1a-c".
PELMEG-524	The K2a, K2c & K2b author's handwriting showed substantial agreement & sufficient amount of handwriting characteristics with the handwriting in question. The handwriting characteristics that were evaluated included line quality, pressure patterns, slant, size, proportions, utilization of space & spatial alignment, initial & terminal strokes, writing speed, skill level, letter form, types of connectors, method of construction & pattern formation.
QP3TNP-524	^ _ ^
RV7XB8-523	The submission of more comparable known writing of Maggie Burke may provide the basis for additional conclusions.
U92VGB-523	Wouldn't it otherwise be impossible for the signature and body to have been executed by anything more than one person if it is in fact an in-person test? This was a little confusing since you asked us to separate these items for individual opinions. Made it seem as though the manufacturer thought it was possible for more than one person to have been involved when really there wasn't.
UBQCGB-524	1) It would be standard practice to undertake ESDA examination of the questioned document. 2) With respect to specific conclusion responses: a 'C' was entered as a conclusion with respect to the Q1 signature and the K1 specimen writer. While the line quality, fluency and skill of the K1 specimen signatures appear to be much less than that of the questioned signature; the K1 specimen signature quality is incongruous with respect to the capability exhibited in the K1 specimen handwriting. In casework, this would lead to concern (and submitter follow-up) about the validity of the specimen K1 signatures. Additionally, the K1 specimen handwriting begins to show some connected fluency in the COB specimens. It would be presumptuous from a logical perspective to assume that the K1 writer wouldn't be capable of the speed and fluency seen in the Q1 signature. Thus, from a strict logical approach, there are sufficient grounds to render an inconclusive opinion

TABLE 3

WebCode-Test	Additional Comments
	regarding authorship of the Q1 signature by the K1 writer, notwithstanding that the Q1 signature has already been identified as being produced by the K2 author. An 'E' was entered as a conclusion with respect to the Q1 handwriting and the K1 specimen writer. This was due to the significant combination of both gross and subtle dissimilarities between the Q1 and K1 handwriting.
UFGY2H-524	Materials should be original not photos. We took the materials as if they had been originals and not reproductions. In a real case conclusions would be B and D instead of A and E.
UK3AM3-524	1)The questioned signature on "Q1" cannot be identified or eliminated to the writer "K2" because the specimen signatures are simulated. 2)The specimen signatures on "K2c" not used for comparison because its were[sic] different structure from the questioned signature.
UL94UM-524	4. Additional comments. The analysis and comparison of the extra processing samples, BONNIE CRAIG, no scriptural evidence that engages in the development of scriptural content and of course the "free creation" on behalf of Magguie[sic] BURKE.
V9E4HB-524	Even though both K1 and K2 shared the same class characteristics, there were some special individualistic features in K2 especially in the strokes movement, special structure, letter and word spacing, slant and the unique way in combined letters which points to the writer of Q1 to be Bonnie Craig of K2. The conclusion is supported further by the numeral date '5/14/15' written in the specimens provided.
VLNDF-523	Examine the specimen and questioned documents for latent indentations.
WARXB-524	Bonnie Craig was the one who wrote the text and the signature of the document Q1 questioned because their samples indubitable K2a pattern, K2C K2b and matching grafodinámicas[sic] have abundant features with text and signature of the document dubitados[sic] Q1.
WUVUHQ-524	It must be noted that the signatures of "Maggie Burke" on the documents marked as "K2a" to "K2b" were purported to be written by one "Bonnie Craig". This is not the person's natural signature, which is not desirable for an objective examination. However they were not excluded from the examination, since they were smooth and free flowing containing distinct similarities in the discriminating elements (construction, letter design, spacing, proportions, alignment and placement) to "Bonnie Craig's" natural signature and writing.
ZPUMVK-523	All documents submitted for examination and analysis have been scanned and photocopied and will be returned with a copy of this report. Should the originals of all documents submitted become available and if requested, further examination and analysis by this Laboratory will be conducted. This report reflects the conclusions, opinions and/or interpretations of the analyst and technical reviewers as indicated by their signatures below.
ZWRAP6-523	Exhibits Q1, K1a, K1b, K1c, K2a, K2b, and K2c are images printed from files submitted on a disc.

# Appendix: Data Sheet

Collaborative Testing Services ~ Forensic Testing Program  
**Test No. 15-523: Handwriting Examination**

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DATA MUST BE RECEIVED BY November 30, 2015 TO BE INCLUDED IN THE REPORT

Participant Code:

WebCode:

## Accreditation Release Statement

CTS submits external proficiency test data directly to ASCLD/LAB and ANAB. 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 and/or ANAB.  
 (Accreditation Release section on the last page must be completed and submitted.)
- This participant's data is **NOT** intended for submission to ASCLD/LAB or ANAB.

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

### Scenario:

Two high school students are being investigated for cheating on the standardized college admission test. Student Maggie Burke is accused of hiring fellow student and coworker Bonnie Craig to take Ms. Burke's test for her. Investigators are using the handprinted honor code agreement and signature (Q1) from the front page of the test to determine whether or not Ms. Craig took the test in place of Ms. Burke. Known course of business writing and dictated exemplars of the agreement have been collected from each party. Please examine the questioned test agreement to determine which, if either, of the individuals is the source of the handprinting and signature in the document.

*Please Note: The Handwriting Examination test is composed of photographic/digital reproductions of original handwriting. All items are to be treated as originals for the purposes of this test.*

### Items Submitted (Sample Pack HWD):

Item K1a-c: Known writings of student Maggie Burke.

Item K2a-c: Known writings of student Bonnie Craig.

Item Q1: The handprinted and signed test honor code agreement.

**Please return all pages of this data sheet.**

Page 1 of 4

Participant Code:

WebCode:

**Examination Results**

Select your responses from the following list and insert the appropriate letters in the space provided in the tables. If the wording differs from the normal wording in your reports, adapt these conclusions as best as you can and use your preferred wording for your written conclusions.

- A. Was WRITTEN by
- B. Was PROBABLY WRITTEN by (some degree of identification)
- C. CANNOT be IDENTIFIED or ELIMINATED\*
- D. Was PROBABLY NOT WRITTEN by (some degree of elimination)
- E. Was NOT WRITTEN by

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

1.) Which, if either, of the known writers wrote the questioned writing (excluding the signature) on the honor code agreement?

	<b>Maggie Burke (K1)</b>	<b>Bonnie Craig (K2)</b>
<b>Q1 (Agreement)</b>		

(Using the provided response key, please enter a letter in each blank in the above chart.)

2.) Which, if either, of the known writers wrote the questioned signature on the honor code agreement?

	<b>Maggie Burke (K1)</b>	<b>Bonnie Craig (K2)</b>
<b>Q1 (Agreement)</b>		

(Using the provided response key, please enter a letter in each blank in the above chart.)

**Please return all pages of this data sheet.**

Page 2 of 4

Participant Code:

WebCode:

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

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**4.) Additional Comments**

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**Return Instructions:** Data must be received via online data entry, fax (please include a cover sheet), or mail by *November 30, 2015* to be included in the report. Emailed data sheets are not accepted.

**QUESTIONS?**

TEL: +1-571-434-1925 (8 am - 4:30 pm EST)  
 EMAIL: [forensics@cts-interlab.com](mailto:forensics@cts-interlab.com)  
[www.ctsforensics.com](http://www.ctsforensics.com)

Participant Code:

ONLINE DATA ENTRY: [www.cts-portal.com](http://www.cts-portal.com)

FAX: +1-571-434-1937

MAIL: Collaborative Testing Services, Inc.  
 P.O. Box 650820  
 Sterling, VA 20165-0820 USA

**Please return all pages of this data sheet.**

Page 3 of 4

## Collaborative Testing Services ~ Forensic Testing Program

**RELEASE OF DATA TO ACCREDITATION BODIES**

The following Accreditation Releases will apply only to:

Participant Code:

WebCode:

for Test No. **15-523: Handwriting Examination**

This release page must be completed and received by **November 30, 2015** to have this participant's submitted data included in the reports forwarded to the respective Accreditation Bodies.

**ASCLD/LAB RELEASE**

If your lab has been accredited by ASCLD/LAB and you are submitting this data as part of their external proficiency test requirements, have the laboratory's designated individual complete the following.

**The information below must be completed in its entirety for the results to be submitted to ASCLD/LAB.**

ASCLD/LAB Legacy Certificate No. \_\_\_\_\_ ASCLD/LAB International Certificate No. \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

Laboratory Name \_\_\_\_\_

Location (City/State) \_\_\_\_\_

**ANAB RELEASE**

If your laboratory maintains its accreditation through ANAB, please complete the following form in its entirety to have your results forwarded.

ANAB Certificate No. \_\_\_\_\_

Signature and Title \_\_\_\_\_ Date \_\_\_\_\_

Laboratory Name \_\_\_\_\_

Location (City/State) \_\_\_\_\_

**Accreditation Release****Return Instructions**

*Please submit the completed Accreditation Release at the same time as your full data sheet. See Data Sheet Return Instructions on the previous page.*

*Questions? Contact us 8 am-4:30 pm EST  
Telephone: +1-571-434-1925  
email: forensics@cts-interlab.com*

**Please return all pages of this data sheet.**

Page 4 of 4