



DNA Interpretation Test No. 24-5882

Summary Report

Each participant received a digitally downloadable sample pack containing electropherograms and raw data files which they were asked to evaluate using their existing protocols. Data were returned from 48 participants and are compiled into the following tables:

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

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

Manufacturer's Information

Each sample pack contained digital files consisting of electropherograms from DNA profiles of two reference samples (Items 1 and 2) and two questioned samples (Items 3 and 4). Participants were asked to evaluate the electropherograms and interpret the data using their existing protocols.

SAMPLE PREPARATION: Item 1 was created using blood collected from a female donor. Item 2 was created using blood collected from a male donor. Item 3 was created by combining three parts of blood from the Item 1 female donor, two parts of blood from the Item 2 male donor, and five parts of blood from an additional male donor whose known standard was not provided. Item 4 was created by combining three parts of blood from the Item 1 female donor and two parts of blood from the Item 2 male donor.

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

SAMPLE PACK ASSEMBLY: Once sample preparation and verification were completed, digitally downloadable materials were zipped and uploaded to the CTS Portal. The digital upload was then checked to ensure all items were accessible.

Consensus results on the following pages were determined by ensuring at least 10 participants returned results for the locus. Each allele listed was determined by ensuring that at least 75% of participants that returned data for that specific locus and item reported the same allele. Additional alleles may be present depending on laboratory thresholds and/or amplification kit used.

Amelogenin and STR Results

Results compiled by predistribution laboratories and a consensus of participants.

Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		
1	15,17	17,24	11,3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
	15,15.2	29,31	11,15	X,X	9,10	18,23
	8,9	14,16	25.2,31.2	9,9	8,11	14,18
	NM	NM	NM	NM		
2	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15,15	18,21	9,10	9,12	17,17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
	11,12	12,12	22.2,29.2	8,9	8,11	14,16
	10	17	17	2		
3	#	17,24,25	11,11,3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
	8,9,11,12,13	12,14,15,16,17	17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11	17	17,18	2		
4	15,17	17,24,25	11,3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
	8,9,11,12	12,14,16	22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10	17	17	2		

YSTR Results

Results compiled from predistribution laboratories and a consensus of at least 10 participants.

Item	DYF3875	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4
2	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
	39	11	11	17	17	20	22	13	11
3	36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	14,15	11,12	12	18,21	31,32	16,17	16,17	11	24,25
	37,39	11,14	11,12	17	17,18	20,23	22,23	10,13	11,12
4	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
	39	11	11	17	17	20	22	13	11

NM - Non-Male profile, YSTR results not expected.

A consensus was not achieved for the loci indicated. Further discussion will be included in the Summary Report.

Summary Comments

This test was designed to allow participants to assess their proficiency in evaluating and interpreting electropherograms (EPGs). Each participant received EPGs (in .pdf and .hid formats) of two reference samples and two questioned samples. The EPG data included were produced from the following amplification kits: GlobalFiler™, Investigator® 24plex, PowerPlex® Fusion 5C, PowerPlex® Fusion 6C, YFiler™ Plus, PowerPlex® Y23. Item 1 was created using blood collected from a female donor. Item 2 was created using blood collected from a male donor. Item 3 was created by combining three parts of blood from the Item 1 female donor, two parts of blood from the Item 2 male donor, and five parts of blood from an additional male donor whose known standard was not provided. Item 4 was created by combining three parts of blood from the Item 1 female donor and two parts of blood from the Item 2 male donor. Refer to the Manufacturer's Information for preparation details.

Consensus results for each item were determined per allele for each locus. Allele determinations were identified by ensuring that at least 10 participants reported results for the locus and that of these participants, 75% of them reported the same allele(s). Results that differed from the consensus were further compared to the participant's reported interpretation guidelines.

DNA Analysis

All 48 participants that returned results evaluated the provided STR data.

For STR results, all participants reported consistent results with the exception of four participants. In addition, a consensus was not achieved for Item 3, Locus D1S1656. A total of 32 participants (68%) reported "11,15,17" and 15 participants (32%) reported "11,15,16,17." A "16" peak was present for GlobalFiler™ (RFU = 440) and PowerPlex® Fusion 6C (RFU = 821) kits. A trend was not identified regarding the non-consensus result.

For YSTR results, all participants reported consistent results with the exception of one participant.

For Item 3, a consensus was achieved for the full Item 3 profile (unseparated). Six participants attempted the deconvolution of this mixture; however, no consensus was formed for major or minor profiles due to the low reporting population.

For Item 4, a consensus was achieved for the full Item 4 profile (unseparated). Six participants attempted the deconvolution of this mixture; however, no consensus was formed for major or minor profiles due to the low reporting population.

DNA Interpretations

For Item 3, all but four participants identified that three (or at least three) individuals contributed to the mixture. The remaining participants identified four contributors. All but two participants included the victim (Item 1) and the suspect (Item 2) as possible contributors to the stain. The remaining two participants reported "Inconclusive/Uninterpretable."

For Item 4, all but one participant identified that two (or at least two) individuals contributed to the mixture. The remaining participant identified three contributors. All participants included the victim (Item 1) and the suspect (Item 2) as possible contributors to the stain.

STR Interpretation Guidelines

TABLE 1

WebCode	Analytical Threshold (rfu)	Peak Height Ratio (%)	Stochastic Threshold (rfu)
2KQ4H7	75	60	
376NE7	130	60	800
3R3HZ2	75	60	100
686YYY	500	60	1,000
6AWWDW	160	60	630
6VWYPZ	120	60	360
78JQAD	75	60	100
8KN3JZ	130	60	800
A96A34	150	60	400
AJ7TJY	130	60	800
AUND4V	[Participant did not provide interpretation guidelines]		
B3CTR9	50	65	200
B4943R	50	50	900
B8CYMV	130	60	800
D7P8NV	130	60	800
DA6LD8	[Participant did not provide interpretation guidelines]		
DMDLLZ	[Participant did not provide interpretation guidelines]		
DQDXGY	50	60	100
ENPG8R	185	60	500
EQ72RL	120	60	360
F3JKPM	75	60	100
GT9J4M	75	60	100
JWL3ZL	75	60	100
K6BDNM	130	60	800
KW2NAN	130	60	800
LURVVF	56	30	100
MNVQFG	54	60	721
NKFJRG	75	60	100
NRPMCL	50	60	100
NVAZFH	130	60	800
P6TQFF	50	60	838
PDQHNA	50	60	360
PYQJ2C	120	60	360
R3JMHA	100	60	300
TW86HQ		60	600
TX3EUA	75	60	100
U9FYRB	75	60	250

TABLE 1

WebCode	Analytical Threshold (rfu)	Peak Height Ratio (%)	Stochastic Threshold (rfu)
UK9MGJ	75	60	100
UMW3XP	75	60	100
UNTC9A	100	60	150
W2B2W4	93	60	900
WFRY26	120	60	360
WJQB6	120	60	360
XDERXL		60	200
XEB3A6	100	65	600
XWVT96	[Participant did not provide interpretation guidelines]		
YUXEVC		60	200
ZHJB9J	75	60	100

YSTR Interpretation Guidelines

TABLE 2

WebCode	Analytical Threshold (rfu)	Peak Height Ratio (%)	Stochastic Threshold (rfu)
2KQ4H7	75	50	
376NE7	50	70	800
3R3HZ2	75	50	75
686YYY	500	60	1,000
6AWWDW	[Participant did not provide interpretation guidelines]		
6VWYPZ	75	50	75
78JQAD	75	50	75
8KN3JZ	50	70	800
A96A34	[Participant did not provide interpretation guidelines]		
AJ7TJY	50	70	800
AUND4V	[Participant did not provide interpretation guidelines]		
B3CTR9	50	65	175
B4943R	[Participant did not provide interpretation guidelines]		
B8CYMV	50	70	800
D7P8NV	50	70	800
DA6LD8	[Participant did not provide interpretation guidelines]		
DMDLLZ	[Participant did not provide interpretation guidelines]		
DQDXGY	[Participant did not provide interpretation guidelines]		
ENPG8R	90	60	200
EQ72RL	75	50	75
F3JKPM	75	50	75
GT9J4M	75	50	75
JWL3ZL	75	50	75
K6BDNM	50	70	800
KW2NAN	50	70	800
LURVVF	80	30	100
MNVQFG	53		
NKFJRG	75	50	75
NRPMCL	50	50	75
NVAZFH	50	70	800
P6TQFF	50	60	
PDQHNA	50	60	180
PYQJ2C	75	50	75
R3JMHA	75	50	75
TW86HQ		60	600
TX3EUA	75	50	75
U9FYRB	120	60	250

TABLE 2

WebCode	Analytical Threshold (rfu)	Peak Height Ratio (%)	Stochastic Threshold (rfu)
UK9MGJ	75	50	75
UMW3XP	75	50	75
UNTC9A	100	60	200
W2B2W4	86	60	455
WFRY26	75	50	75
WJQB6	75	50	75
XDERXL	75	50	225
XEB3A6	[Participant did not provide interpretation guidelines]		
XWVT96	[Participant did not provide interpretation guidelines]		
YUXEVC	[Participant did not provide interpretation guidelines]		
ZHJB9J	75	50	75

STR & Amelogenin Results

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
Item	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 1 - STR Results

2KQ4H7	PowerPlex® Fusion 5C, PowerPlex® Fusion 6C (HID Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
	1	15,15.2	29,31	11,15	X	9,10
	8,9	14,16	25.2,31.2	9	8,11	14,18

376NE7	GlobalFiler™					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
	1	15,15.2	29,31	11,15	X,X	9,10
			25.2,31.2	9,9	8,11	14,18

3R3HZ2	GlobalFiler™ (PDF Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
	1	15,15.2	29,31	11,15	X,X	9,10
			25.2,31.2	9,9	8,11	14,18

686YYY	GlobalFiler™					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
	1	15,15.2	29,31	11,15	X,X	9,10
			25.2,31.2	9,9	8,11	14,18

6AWWDW	GlobalFiler™ (HID Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
	1	15,15.2	29,31	11,15	X	9,10
			25.2,31.2	9	8,11	14,18

6VWYPZ	GlobalFiler™ (PDF Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
	1	15,15.2	29,31	11,15	X,X	9,10
			25.2,31.2	9	8,11	14,18
	NM			NM		

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 1 - STR Results

78JQAD	PowerPlex® Fusion 6C (HID Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
	15,15.2	29,31	11,15	X	9,10	18,23
1	8,9	14,16	25.2,31.2	9,9	8,11	14,18

8KN3JZ	GlobalFiler™ (HID Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
	15,15.2	29,31	11,15	X,X	9,10	18,23
1			25.2,31.2	9,9	8,11	14,18

A96A34	GlobalFiler™					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
	15,15.2	29,31	11,15	X,X	9,10	18,23
1			25.2,31.2	9,9	8,11	14,18
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AJ7TJY	GlobalFiler™ (HID Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
	15,15.2	29,31	11,15	X,X	9,10	18,23
1			25.2,31.2	9,9	8,11	14,18

AUND4V	GlobalFiler™, PowerPlex® Fusion 6C (PDF Format), (HID Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
	15,15.2	29,31	11,15	X,X	9,10	18,23
1	8,9	14,16	25.2,31.2	9	8,11	14,18

B3CTR9	PowerPlex® Fusion 5C					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
	15,15.2	29,31	11,15	X	9,10	18,23
1	8,9	14,16		9	8,11	14,18

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 1 - STR Results

WebCode	Amplification Kits (File Format) (STRmix)
B4943R	GlobalFiler™ (HID Format) (STRmix)
	15,17 17,24 11.3,14 15,16 11,12 10,12
	13,14 15,16 19,20 8,12 11,12 13,17
1	15,15.2 29,31 11,15 X,X 9,10 18,23
	25.2,31.2 9,9 8,11 14,18
	NR NR

WebCode	Amplification Kits (File Format) (HID Format)
B8CYMV	GlobalFiler™ (PDF Format), (HID Format)
	15,17 17,24 11.3,14 15,16 11,12 10,12
	13,14 15,16 19,20 8,12 11,12 13,17
1	15,15.2 29,31 11,15 X,X 9,10 18,23
	- - 25.2,31.2 9,9 8,11 14,18
	- - - - -

WebCode	Amplification Kits (File Format) (HID Format)
D7P8NV	GlobalFiler™
	15,17 17,24 11.3,14 15,16 11,12 10,12
	13,14 15,16 19,20 8,12 11,12 13,17
1	15,15.2 29,31 11,15 X,X 9,10 18,23
	25.2,31.2 9,9 8,11 14,18

WebCode	Amplification Kits (File Format) (HID Format)
DA6LD8	PowerPlex® Fusion 6C
	15,17 17,24 11.3,14 15,16 11,12 10,12
	13,14 15,16 19,20 8,12 11,12 13,17
1	15,15.2 29,31 11,15 X 9,10 18,23
	8,9 14,16 25.2,31.2 9 8,11 14,18

WebCode	Amplification Kits (File Format) (HID Format)
DMDLLZ	GlobalFiler™, Investigator® 24plex, PowerPlex® Fusion 5C, PowerPlex® Fusion 6C (PDF Format), (HID Format) (LabRetriever)
	15,17 17,24 11.3,14 15,16 11,12 10,12
	13,14 15,16 19,20 8,12 11,12 13,17
1	15,15.2 29,31 11,15 X 9,10 18,23
	8,9 14,16 25.2,31.2 9 8,11 14,18

WebCode	Amplification Kits (File Format) (HID Format)
DQDXGY	PowerPlex® Fusion 6C (HID Format)
	15,17 17,24 11.3,14 15,16 11,12 10,12
	13,14 15,16 19,20 8,12 11,12 13,17
1	15,15.2 29,31 11,15 X,X 9,10 18,23
	8,9 14,16 25.2,31.2 9,9 8,11 14,18

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 1 - STR Results

ENPG8R	GlobalFiler™ (HID Format) (GeneMapper ID-X 1.5)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X	9,10	18,23
			25.2,31.2	9	8,11	14,18

EQ72RL	GlobalFiler™ (PDF Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
			25.2,31.2	9	8,11	14,18
	NM			NM		

F3JKPM	GlobalFiler™ (PDF Format) (GeneMapper ID-X v 1.6)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
			25.2,31.2	9,9	8,11	14,18

GT9J4M	GlobalFiler™ (PDF Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
			25.2,31.2	9,9	8,11	14,18

JWL3ZL	GlobalFiler™ (PDF Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
			25.2,31.2	9,9	8,11	14,18

K6BDNM	GlobalFiler™ (HID Format) (STRmix)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
			25.2,31.2	9,9	8,11	14,18

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 1 - STR Results

KW2NAN	GlobalFiler™ (PDF Format), (HID Format) (STRMix)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
			25.2,31.2	9,9	8,11	14,18

LURVVF	GlobalFiler™, PowerPlex® Fusion 6C (HID Format) (GeneMapper ID-X 1.6)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X	9,10	18,23
	8,9	14,16	25.2,31.2	9	8,11	14,18

MNVQFG	PowerPlex® Fusion 6C (HID Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
	8,9	14,16	25.2,31.2	9	8,11	14,18

NKFJRG	PowerPlex® Fusion 6C (PDF Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X	9,10	18,23
	8,9	14,16	25.2,31.2	9	8,11	14,18

NRPMCL	GlobalFiler™ (STRmix)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
			25.2,31.2	9,9	8,11	14,18

NVAZFH	GlobalFiler™ (HID Format) (STR Mix)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
			25.2,31.2	9,9	8,11	14,18

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 1 - STR Results

P6TQFF	GlobalFiler™ (HID Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
			25.2,31.2	9,9	8,11	14,18

PDQHNA	GlobalFiler™ (PDF Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
			25.2,31.2	9,9	8,11	14,18

PYQJ2C	GlobalFiler™ (HID Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
			25.2,31.2	9	8,11	14,18
	NM			NM		

R3JMHA	GlobalFiler™ (PDF Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
			25.2,31.2	9	8,11	14,18
	NM			NM		

TW86HQ	GlobalFiler™ (HID Format) (GeneMapper ID-X1.5)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
			25.2,31.2	9,9	8,11	14,18

TX3EUA	GlobalFiler™, Investigator® 24plex, PowerPlex® Fusion 5C, PowerPlex® Fusion 6C (PDF Format), (HID Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X	9,10	18,23
	8,9	14,16	25.2,31.2	9	8,11	14,18

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 1 - STR Results

U9FYRB	GlobalFiler™					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
			25.2,31.2	9,9	8,11	14,18

UK9MGJ	GlobalFiler™, Investigator® 24plex, PowerPlex® Fusion 5C, PowerPlex® Fusion 6C (PDF Format), (HID Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
	8,9	14,16	25.2,31.2	9	8,11	14,18

UMW3XP	GlobalFiler™ (PDF Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
	N/A	N/A	25.2,31.2	9,9	8,11	14,18
	NSD	N/A	N/A	NSD		

UNTC9A	GlobalFiler™, PowerPlex® Fusion 5C, PowerPlex® Fusion 6C					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X	9,10	18,23
	8,9	14,16	25.2,31.2	9	8,11	14,18

W2B2W4	GlobalFiler™, PowerPlex® Fusion 6C (PDF Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X	9,10	18,23
	8,9	14,16	25.2,31.2	9	8,11	14,18

WFRY26	GlobalFiler™ (PDF Format)					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
1	15,15.2	29,31	11,15	X,X	9,10	18,23
			25.2,31.2	9	8,11	14,18
	NM			NM		

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 1 - STR Results

WJQBX6	GlobalFiler™ (PDF Format)						
	15,17	17,24	11.3,14	15,16	11,12	10,12	
	13,14	15,16	19,20	8,12	11,12	13,17	
	1	15,15.2	29,31	11,15	X,X	9,10	18,23
				25.2,31.2	9	8,11	14,18
	NM			NM			
XDERXL	Investigator® 24plex (HID Format) (GeneMarker V.2.9.5. (SoftGenetics))						
	15,17	17,24	11.3,14	15,16	11,12	10,12	
	13,14	15,16	19,20	8,12	11,12	13,17	
	1	15,15.2	29,31	11,15	X	9,10	18,23
				25.2,31.2	9	8,11	14,18
XEB3A6	Investigator® 24plex						
	15,17	17,24	11.3,14	15,16	11,12	10,12	
	13,14	15,16	19,20	8,12	11,12	13,17	
	1	15,15.2	29,31	11,15	X	9,10	18,23
				25.2,31.2	9	8,11	14,18
	-						
XWVT96	PowerPlex® Fusion 6C (HID Format)						
	15,17	17,24	11.3,14	15,16	11,12	10,12	
	13,14	15,16	19,20	8,12	11,12	13,17	
	1	15,15.2	29,31	11,15	X	9,10	18,23
		8,9	14,16	25.2,31.2	9	8,11	14,18
YUXEVC	GlobalFiler™ (PDF Format) (Genetica Forense Final GFF)						
	15,17	17,24	11.3,14	15,16	11,12	10,12	
	13,14	15,16	19,20	8,12	11,12	13,17	
	1	15,15.2	29,31	11,15	X,X	9,10	18,23
				25.2,31.2	9,9	8,11	14,18
ZHJB9J	PowerPlex® Fusion 5C (PDF Format), (HID Format) (LRmix Studio 2.1.5 Community Edition)						
	15,17	17,24	11.3,14	15,16	11,12	10,12	
	13,14	15,16	19,20	8,12	11,12	13,17	
	1	15,15.2	29,31	11,15	X	9,10	18,23
		8,9	14,16		9	8,11	14,18
	-						

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 2 - STR Results

2KQ4H7	PowerPlex® Fusion 5C, PowerPlex® Fusion 6C (HID Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15	18,21	9,10	9,12	17
2	13,14	28,33	11,14	X,Y	10,12	17.2,24
	11,12	12	22.2,29.2	8,9	8,11	14,16
	10	17	17			
<hr/>						
376NE7	GlobalFiler™					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15,15	18,21	9,10	9,12	17,17
2	13,14	28,33	11,14	X,Y	10,12	17.2,24
			22.2,29.2	8,9	8,11	14,16
	10			2		
<hr/>						
3R3HZ2	GlobalFiler™ (PDF Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15,15	18,21	9,10	9,12	17,17
2	13,14	28,33	11,14	X,Y	10,12	17.2,24
			22.2,29.2	8,9	8,11	14,16
	10			2		
<hr/>						
686YYY	GlobalFiler™					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15,15	18,21	9,10	9,12	17,17
2	13,14	28,33	11,14	X,Y	10,12	17.2,24
			22.2,29.2	8,9	8,11	14,16
	10			2		
<hr/>						
6AWWDW	GlobalFiler™ (HID Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15	18,21	9,10	9,12	17
2	13,14	28,33	11,14	X,Y	10,12	17.2,24
			22.2,29.2	8,9	8,11	14,16
	10			2		
<hr/>						
6VWYPZ	GlobalFiler™ (PDF Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15	18,21	9,10	9,12	17
2	13,14	28,33	11,14	X,Y	10,12	17.2,24
			22.2,29.2	8,9	8,11	14,16
	10			2		

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D25441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 2 - STR Results

78JQAD	PowerPlex® Fusion 6C (HID Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15,15	18,21	9,10	9,12	17,17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
	11,12	12,12	22.2,29.2	8,9	8,11	14,16
	10	17	17			
8KN3JZ	GlobalFiler™ (HID Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15,15	18,21	9,10	9,12	17,17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
			22.2,29.2	8,9	8,11	14,16
	10		2			
A96A34	GlobalFiler™					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15,15	18,21	9,10	9,12	17,17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
			22.2,29.2	8,9	8,11	14,16
	10		2			
AJ7TJY	GlobalFiler™ (HID Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15,15	18,21	9,10	9,12	17,17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
			22.2,29.2	8,9	8,11	14,16
	10		2			
AUND4V	GlobalFiler™, PowerPlex® Fusion 6C (PDF Format), (HID Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15	18,21	9,10	9,12	17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
	11,12	12	22.2,29.2	8,9	8,11	14,16
	10	17	17	2		
B3CTR9	PowerPlex® Fusion 5C					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15	18,21	9,10	9,12	17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
	11,12	12		8,9	8,11	14,16
	10					

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D25441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 2 - STR Results

B4943R	GlobalFiler™ (HID Format) (STRmix)						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15,15	18,21	9,10	9,12	17,17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
				22.2,29.2	8,9	8,11	14,16
	10			2			
B8CYMV	GlobalFiler™ (PDF Format), (HID Format)						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15,15	18,21	9,10	9,12	17,17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
		-	-	22.2,29.2	8,9	8,11	14,16
	10	-	-	2			
D7P8NV	GlobalFiler™						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15,15	18,21	9,10	9,12	17,17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
				22.2,29.2	8,9	8,11	14,16
	10			2			
DA6LD8	PowerPlex® Fusion 6C						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15	18,21	9,10	9,12	17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
		11,12	12	22.2,29.2	8,9	8,11	14,16
	10	17	17				
DMDLLZ	GlobalFiler™, Investigator® 24plex, PowerPlex® Fusion 5C, PowerPlex® Fusion 6C (PDF Format), (HID Format) (LabRetriever)						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15	18,21	9,10	9,12	17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
		11,12	12	22.2,29.2	8,9	8,11	14,16
	10	17	17	2			
DQDXGY	PowerPlex® Fusion 6C (HID Format)						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15,15	18,21	9,10	9,12	17,17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
		11,12	12,12	22.2,29.2	8,9	8,11	14,16
	10	17	17				

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 2 - STR Results

ENPG8R	GlobalFiler™ (HID Format) (GeneMapper ID-X 1.5)						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15	18,21	9,10	9,12	17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
				22.2,29.2	8,9	8,11	14,16
	10			2			
EQ72RL	GlobalFiler™ (PDF Format)						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15	18,21	9,10	9,12	17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
				22.2,29.2	8,9	8,11	14,16
	10			2			
F3JKPM	GlobalFiler™ (PDF Format) (GeneMapper ID-X v 1.6)						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15,15	18,21	9,10	9,12	17,17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
				22.2,29.2	8,9	8,11	14,16
	10			2			
GT9J4M	GlobalFiler™ (PDF Format)						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15,15	18,21	9,10	9,12	17,17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
				22.2,29.2	8,9	8,11	14,16
	10			2			
JWL3ZL	GlobalFiler™ (PDF Format)						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15,15	18,21	9,10	9,12	17,17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
				22.2,29.2	8,9	8,11	14,16
	10			2			
K6BDNM	GlobalFiler™ (HID Format)						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15,15	18,21	9,10	9,12	17,17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
				22.2,29.2	8,9	8,11	14,16
	10			2			

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 2 - STR Results

KW2NAN	GlobalFiler™ (PDF Format), (HID Format) (STRMix)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15,15	18,21	9,10	9,12	17,17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
			22.2,29.2	8,9	8,11	14,16
	10		2			

LURVVF	GlobalFiler™, PowerPlex® Fusion 6C (HID Format) (GeneMapper ID-X 1.6)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15	18,21	9,10	9,12	17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
		11,12	12	22.2,29.2	8,9	8,11
	10	17	17	2		

MNVQFG	PowerPlex® Fusion 6C (HID Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15	18,21	9,10	9,12	17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
		11,12	12	22.2,29.2	8,9	8,11
	10	17	17			

NKFJRG	PowerPlex® Fusion 6C (PDF Format)					
	15,16,17	24,25	12,14	15,16	10,12	9,11
	13,14	15	18,21	9,10	9,12	17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
		11,12	12	22.2,29.2	8,9	8,11
	10	17	17			

NRPACL	GlobalFiler™ (STRmix)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15,15	18,21	9,10	9,12	17,17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
			22.2,29.2	8,9	8,11	14,16
	10		2			

NVAZFH	GlobalFiler™ (HID Format) (STRMix)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15,15	18,21	9,10	9,12	17,17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
			22.2,29.2	8,9	8,11	14,16
	10		2			

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 2 - STR Results

P6TQFF	GlobalFiler™ (HID Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15,15	18,21	9,10	9,12	17,17
2	13,14	28,33	11,14	X,Y	10,12	17.2,24
			22.2,29.2	8,9	8,11	14,16
	10			2		

PDQHNA	GlobalFiler™ (PDF Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15,15	18,21	9,10	9,12	17,17
2	13,14	28,33	11,14	X,Y	10,12	17.2,24
			22.2,29.2	8,9	8,11	14,16
	10			2		

PYQJ2C	GlobalFiler™ (HID Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15	18,21	9,10	9,12	17
2	13,14	28,33	11,14	X,Y	10,12	17.2,24
			22.2,29.2	8,9	8,11	14,16
	10			2		

R3JMHA	GlobalFiler™ (PDF Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15	18,21	9,10	9,12	17
2	13,14	28,33	11,14	X,Y	10,12	17.2,24
			22.2,29.2	8,9	8,11	14,16
	10			2		

TW86HQ	GlobalFiler™ (HID Format) (GeneMapper ID-X1.5)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15,15	18,21	9,10	9,12	17,17
2	13,14	28,33	11,14	X,Y	10,12	17.2,24
			22.2,29.2	8,9	8,11	14,16
	10			2		

TX3EUA	GlobalFiler™, Investigator® 24plex, PowerPlex® Fusion 5C, PowerPlex® Fusion 6C (PDF Format), (HID Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15	18,21	9,10	9,12	17
2	13,14	28,33	11,14	X,Y	10,12	17.2,24
		11,12	12	22.2,29.2	8,9	8,11
	10	17	17	2		

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 2 - STR Results

U9FYRB	GlobalFiler™					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15,15	18,21	9,10	9,12	17,17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
	10		22.2,29.2	8,9	8,11	14,16
UK9MGJ	GlobalFiler™, Investigator® 24plex, PowerPlex® Fusion 5C, PowerPlex® Fusion 6C (PDF Format), (HID Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15	18,21	9,10	9,12	17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
	10	17	17	2	8,9	14,16
UMW3XP	GlobalFiler™ (PDF Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15,15	18,21	9,10	9,12	17,17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
	10	N/A	N/A	2	8,9	14,16
UNTC9A	GlobalFiler™, PowerPlex® Fusion 5C, PowerPlex® Fusion 6C					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15	18,21	9,10	9,12	17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
	10	17	17	2	8,9	14,16
W2B2W4	GlobalFiler™, PowerPlex® Fusion 6C (PDF Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15	18,21	9,10	9,12	17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
	10	17	17	2	8,9	14,16
WFRY26	GlobalFiler™ (PDF Format)					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15	18,21	9,10	9,12	17
	13,14	28,33	11,14	X,Y	10,12	17.2,24
	10		22.2,29.2	8,9	8,11	14,16

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 2 - STR Results

WJQBX6	GlobalFiler™ (PDF Format)						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15	18,21	9,10	9,12	17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
				22.2,29.2	8,9	8,11	14,16
	10			2			
XDERXL	Investigator® 24plex (HID Format) (GeneMarker V.2.9.5. (SoftGenetics))						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15	18,21	9,10	9,12	17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
				22.2,29.2	8,9	8,11	14,16
	10						
XEB3A6	Investigator® 24plex						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15	18,21	9,10	9,12	17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
				22.2,29.2	8,9	8,11	14,16
	10						
XWVT96	PowerPlex® Fusion 6C (HID Format)						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15	18,21	9,10	9,12	17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
		11,12	12	22.2,29.2	8,9	8,11	14,16
	10	17	17				
YUXEVC	GlobalFiler™ (PDF Format) (Genetica Forense Final GFF)						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15,15	18,21	9,10	9,12	17,17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
				22.2,29.2	8,9	8,11	14,16
	10			2			
ZHJB9J	PowerPlex® Fusion 5C (PDF Format), (HID Format) (LRmix Studio 2.1.5 Community Edition)						
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15	18,21	9,10	9,12	17	
	2	13,14	28,33	11,14	X,Y	10,12	17.2,24
		11,12	12		8,9	8,11	14,16
	10						

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D25441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 3 - STR Results

2KQ4H7	PowerPlex® Fusion 5C, PowerPlex® Fusion 6C (HID Format) (Lab Retriever)					
	11,15,16,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,14.2,15,15.2	28,29,30,30.2,31,32,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
	8,9,11,12,13	12,14,15,16,17	17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11	17	17,18			

376NE7	GlobalFiler™ (STRmix v 2.10)					
	11,15,16,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		

3R3HZ2	GlobalFiler™ (PDF Format) (LR mix Studio 2.1.3)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		

686YYY	GlobalFiler™					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		

6AWWDW	GlobalFiler™ (HID Format)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		

6VWYPZ	GlobalFiler™ (PDF Format)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 3 - STR Results

78JQAD	PowerPlex® Fusion 6C (HID Format)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
	8,9,11,12,13	12,14,15,16,17	17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11	17	17,18			
8KN3JZ	GlobalFiler™ (HID Format) (STRMix)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11		2			
A96A34	GlobalFiler™					
	11,15,16,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11		2			
AJ7TJY	GlobalFiler™ (HID Format) (STRmix)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11		2			
AUND4V	GlobalFiler™, PowerPlex® Fusion 6C (PDF Format), (HID Format)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
	8,9,11,12,13	12,14,15,16,17	17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11	17	17,18	2		

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 3 - STR Results

B3CTR9	PowerPlex® Fusion 5C					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13,16	13,17,18,19
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
	8,9,11,12,13	12,14,15,16,17		7,8,9,9.3	8,11	14,16,17,18,19
	10,11					
	11,15	17,24	11	15,16	11,12	10,12
	10,11	13,14	17,18	11	13,16	18,19
3major	13,14	30,30.2	15,16	X,Y	9,11	19,23
	12,13	15,17		7,9.3	8,11	17,19
	11					
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15	18,21	9,10	9,12	17
3minor	13,14	28,33	11,14	X,Y	10,12	17.2,24
	11,12	12		8,9	8,11	14,16
	10					

B4943R	GlobalFiler™ (HID Format) (STRmix)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		

B8CYMV	GlobalFiler™ (PDF Format), (HID Format) (STRMIX)					
	11,15,16,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
	-	-	17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11	-	-	2		
	15,17	24,25	12,14	15,16	10,12	9,11
	13,14	15,15	18,21	9,10	9,12	17,17
3major	13,14	28,33	11,14		10,12	17.2,24
			22.2,29.2	8,9	8,11	14,16
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17
3minor	15,15.2	29,31	11,15		9,10	18,23
			25.2,31.2	INC	11,F	14,18

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D25441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 3 - STR Results

D7P8NV	GlobalFiler™ (STRmix Version 2.10)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		
DA6LD8	PowerPlex® Fusion 6C					
	11,15,16,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,14.2,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
	8,9,11,12,13	12,14,15,16,17	17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11	17	17,18			
DMDLLZ	GlobalFiler™, Investigator® 24plex, PowerPlex® Fusion 5C, PowerPlex® Fusion 6C (PDF Format), (HID Format) (LabRetriever)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
	8,9,11,12,13	12,14,15,16,17	17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11	17	17,18	2		
DQDXGY	PowerPlex® Fusion 6C (HID Format)					
	11,15,17	17,24	11,11.3,14	15,16	10,11,12	9,10,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11	18,19,23,24
	8,9,11,12,13	12,14,15,16,17	17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11	17	17,18			
ENPG8R	GlobalFiler™ (HID Format) (GeneMapper ID-X 1.5)					
	11,15,16,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		
EQ2RL	GlobalFiler™ (PDF Format)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D25441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 3 - STR Results

F3JKPM	GlobalFiler™ (PDF Format) (GeneMapper ID-X v 1.6)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		

GT9J4M	GlobalFiler™ (PDF Format)					
	11,15,16,17	17,17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,32,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		

JWL3ZL	GlobalFiler™ (PDF Format)					
	11,15,16,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,32,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		

	11,15	17	11	16	11,12	12
	10,11,13,14	13,14,15	17,18	10,11	12,13	17,18
3major	13,14	29,30,30.2	11,15,16	X	10,11	19,23
			17,26.2	7,9,9.3	8,11	14,17,18,19
	11					
	16,17	24,25	11.3,12,14	15	10	9,10,11
		16	19,20,21	8,9,12	9,11	13
3minor	15,15.2	28,31,32,33	14	Y	9,12	17.2,18,24
			22.2,25.2,29.2,31.2	8		16
	10					

K6BDNM	GlobalFiler™ (HID Format)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D25441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 3 - STR Results

KW2NAN	GlobalFiler™ (PDF Format), (HID Format) (STRMix)						
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12	
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18	
	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24	
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19	
	10,11		2				
LURVVF	GlobalFiler™, PowerPlex® Fusion 6C (HID Format) (GeneMapper ID-X 1.6, DNAs 2.7.12, EuroForMix 4.1.0, EuroForMix 1.1.0, LrMixStudio 2.1.5)						
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12	
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18	
	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24	
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19	
		10,11	17	17,18	2		
		11,15	17	11	16	11,12	12
		10,11	13,14	17,18	10,11	12,13	17,18
	3major	13,14	30,30.2	15,16	X,Y	10,11	19,23
		12,13	15,17	17,26.2	7,9.3	8,11	17,19
	11	17	18	2			
MNVQFG	PowerPlex® Fusion 6C (HID Format)						
	11,15,16,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12	
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18	
	13,14,14.2,15,15.2	28,29,30,30.2,31,32,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24	
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19	
	10,11	17	17,18				
NKFJRG	PowerPlex® Fusion 6C (PDF Format)						
	11,15,16,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12	
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18	
	13,14,14.2,15,15.2	28,29,30,30.2,31,32,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24	
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19	
	10,11	17	17,18				
NRPACL	GlobalFiler™ (STRmix)						
	11,15,16,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12	
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18	
	13,14,15,15.2	28,29,30,30.2,31,32,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24	
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19	
	10,11		2				

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D25441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 3 - STR Results

NVAZFH	GlobalFiler™ (HID Format) (STRMix)					
	11,15,16,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19

P6TQFF	GlobalFiler™ (HID Format) (DNAxs)					
	11,15,16,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,32,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		

PDQHNA	GlobalFiler™ (PDF Format)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		

PYQJ2C	GlobalFiler™ (HID Format)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		

R3JMHA	GlobalFiler™ (PDF Format) (DNA VIEW ver37.55)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		

TW86HQ	GlobalFiler™ (HID Format) (GeneMapper ID-X1.5)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
3	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11			2		

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D25441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 3 - STR Results

TX3EUA	GlobalFiler™, Investigator® 24plex, PowerPlex® Fusion 5C, PowerPlex® Fusion 6C (PDF Format), (HID Format)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
	8,9,11,12,13	12,14,15,16,17	17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11	17	17,18	2		
U9FYRB	GlobalFiler™					
	11,15,16,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,32,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11		2			
UK9MGJ	GlobalFiler™, Investigator® 24plex, PowerPlex® Fusion 5C, PowerPlex® Fusion 6C (PDF Format), (HID Format)					
	11,15,16,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,32,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
	8,9,11,12,13	12,14,15,16,17	17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11	17	17,18	2		
UMW3XP	GlobalFiler™ (PDF Format)					
	11,15,16,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,32,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
	N/A	N/A	17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11	N/A	N/A	2		
UNTC9A	GlobalFiler™, PowerPlex® Fusion 5C, PowerPlex® Fusion 6C					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
	8,9,11,12,13	12,14,15,16,17	17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11	17	17,18	2		

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D25441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 3 - STR Results

W2B2W4	GlobalFiler™, PowerPlex® Fusion 6C (PDF Format)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
	8,9,11,12,13	12,14,15,16,17	17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11	17	17,18	2		
WFRY26	GlobalFiler™ (PDF Format)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11		2			
WJQBX6	GlobalFiler™ (PDF Format)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11		2			
XDERXL	Investigator® 24plex (HID Format) (GeneMarker V.2.9.5. (SoftGenetics))					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11					
XEB3A6	Investigator® 24plex					
	11,15,17	–	11,11.3,12,14	15,16	10,11,12	–
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	–	13,17,18
	13,14,15,15.2	–	11,14,15,16	X,Y	–	–
			–	7,8,9,9.3	8,11	14,16,17,18,19
	10,11					
XWVT96	PowerPlex® Fusion 6C (HID Format) (STRmix)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
	8,9,11,12,13	12,14,15,16,17	17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11	17	17,18			

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 3 - STR Results

YUXEVC	GlobalFiler™					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
			17,22.2,25.2,26.2,29.2,31.2	7,8,9,9.3	8,11	14,16,17,18,19
	10,11		2			
ZHJB9J	PowerPlex® Fusion 5C (PDF Format), (HID Format) (LRmix Studio 2.1.5 Community Edition)					
	11,15,17	17,24,25	11,11.3,12,14	15,16	10,11,12	9,10,11,12
	10,11,13,14	13,14,15,16	17,18,19,20,21	8,9,10,11,12	9,11,12,13	13,17,18
	13,14,15,15.2	28,29,30,30.2,31,33	11,14,15,16	X,Y	9,10,11,12	17.2,18,19,23,24
		8,9,11,12,13	12,14,15,16,17	7,8,9,9.3	8,11	14,16,17,18,19
	10,11					
3major	11,15	17	11	16	11,12	12
	10,11	13,14	17,18	10,11	12,13	17,18
	13,14	30,30.2	11,15	X	10,11	19,23
	12,13	15,17		7,9.3	8,11	17,19
	11					
3minor	17	24,25	11.3,12,14	15	10	9,10,11
	13,14	15,16	19,20,21	8,9,12	9,11	13
	15,15.2	28,29,31,33	14,16	Y	9,12	17.2,18,24
	8,9,11	12,14,16		8,9	-	14,16,18
	10					

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 4 - STR Results

2KQ4H7	PowerPlex® Fusion 5C, PowerPlex® Fusion 6C (HID Format) (Lab Retriever)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
	8,9,11,12	12,14,16	22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10	17	17			
376NE7	GlobalFiler™ (STRmix v 2.10)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		
3R3HZ2	GlobalFiler™ (PDF Format) (LR mix Studio 2.1.3)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		
686YYY	GlobalFiler™					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		
6AWWDW	GlobalFiler™ (HID Format)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		
6VWYPZ	GlobalFiler™ (PDF Format)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 4 - STR Results

78JQAD	PowerPlex® Fusion 6C (HID Format)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
	8,9,11,12	12,14,16	22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10	17	17			

8KN3JZ	GlobalFiler™ (HID Format) (STRMix)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		

A96A34	GlobalFiler™					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,11,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		

AJ7TJY	GlobalFiler™ (HID Format) (STRmix)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		

AUND4V	GlobalFiler™, PowerPlex® Fusion 6C (PDF Format), (HID Format)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
	8,9,11,12	12,14,16	22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10	17	17	2		

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 4 - STR Results

WebCode	Amplification Kits (File Format)	STR Results					
B3CTR9	PowerPlex® Fusion 5C	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
		13,14	15,16	18,19,20,21	8,9,10,12	9,11,12,15	13,17
	4	13,14,15,15.2	28,29,31,32,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
		8,9,11,12	12,14,16		8,9	8,11	14,16,18
		10					
		15,17	17,24	11.3,14	15,16	11,12	10,12
		13,14	15,16	19,20	8,12	11,12	13,17
	4major	15,15.2	29,31	11,15	X	9,10	18,23
		8,9	14,16		9	8,11	14,18
		-					
	15,17	24,25	12,14	15,16	10,12	9,11	
	13,14	15	18,21	9,10	9,12	17	
4minor	13,14	28,33	11,14	X,Y	9,12	17.2,18	
	11,12	12		8,9	8,11	14,16	

WebCode	Amplification Kits (File Format)	STR Results					
B4943R	GlobalFiler™ (HID Format) (STRmix)	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
		13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
	4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
				22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
		10			2		

WebCode	Amplification Kits (File Format)	STR Results					
B8CYMV	GlobalFiler™ (PDF Format), (HID Format) (STRMIX)	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
		13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
	4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
		-	-	22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
		10	-	-	2		
		15,17	24,25	12,14	15,16	10,12	9,11
		13,14	15,15	18,21	9,10	9,12	17,17
	4major	13,14	28,33	11,14		10,12	17.2,24
				22.2,29.2	8,9	8,11	14,16
		15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15,16	19,20	8,12	11,12	13,17	
4minor	15,15.2	29,31	11,15		9,10	18,23	
			25.2,31.2	9,9	8,11	14,18	

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D25441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 4 - STR Results

D7P8NV	GlobalFiler™ (STRmix Version 2.10)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		

DA6LD8	PowerPlex® Fusion 6C					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
	8,9,11,12	12,14,16	22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10	17	17			

DMDLLZ	GlobalFiler™, Investigator® 24plex, PowerPlex® Fusion 5C, PowerPlex® Fusion 6C (PDF Format), (HID Format) (LabRetriever)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
	8,9,11,12	12,14,16	22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10	17	17	2		

DQDXGY	PowerPlex® Fusion 6C (HID Format)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
	8,9,11,12	12,14,16	22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10	17	17			

ENPG8R	GlobalFiler™ (HID Format) (GeneMapper ID-X 1.5)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		

EQ72RL	GlobalFiler™ (PDF Format)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 4 - STR Results

F3JKPM	GlobalFiler™ (PDF Format) (GeneMapper ID-X v 1.6)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		

GT9J4M	GlobalFiler™ (PDF Format)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,32,33	11,14,15	X,Y	9,10,11,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9,9	8,11	14,16,18
	10			2		

JWL3ZL	GlobalFiler™ (PDF Format)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		

	15,17	17,24	11.3,14	15,16	11,12	9,10,11,12
	13,14	15	18,19,20	8,9,12	11,12	13,17
4major	28,29,31		11,15	X	9,10	17.2,18,23
			22.2,25.2,31.2	9	8,11	14,18
	10			2		
		25	12		10	
		16	21	10	9	
4minor		33	14	Y	12	24
			29.2	8		16

K6BDNM	GlobalFiler™ (HID Format) (STRmix)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		

KW2NAN	GlobalFiler™ (PDF Format), (HID Format) (STRMix)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 4 - STR Results

LURVVF GlobalFiler™, PowerPlex® Fusion 6C (HID Format) (GeneMapper ID-X 1.6, DNAXs 2.7.12, EuroForMix 4.1.0, EuroForMix 1.1.0, LrMixStudio 2.1.5)

	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,23	11,14,15	X,Y	9,10,12	17.2,18,23,24
	8,9,11,12	12,14,16	22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10	17	17	2		

MNVQFG PowerPlex® Fusion 6C (HID Format)

	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
	8,9,11,12	12,14,16	22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10	17	17			

NKFJRG PowerPlex® Fusion 6C (PDF Format)

	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12,15	13,17
4	13,14,15,15.2	28,29,31,32,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
	8,9,11,12	12,14,16	22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10	17	17			

NRPMCL GlobalFiler™ (STRmix)

	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,32,33	11,14,15	X,Y	9,10,11,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		

NVAZFH GlobalFiler™ (HID Format) (STRMix)

	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 4 - STR Results

P6TQFF	GlobalFiler™ (HID Format) (DNAXs)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,32,33	11,14,15	X,Y	9,10,11,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		

	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14		19,20	8,12	11,12	
4major		29,31	11,15	X,X	9,10	18,23
			25.2,31.2	9,9	8,11	14,18

PDQHNA	GlobalFiler™ (PDF Format)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		

PYQJ2C	GlobalFiler™ (HID Format)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		

R3JMHA	GlobalFiler™ (PDF Format) (DNA VIEW ver 37.55)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		

TW86HQ	GlobalFiler™ (HID Format) (GeneMapper ID-X1.5)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10			2		

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D25441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 4 - STR Results

TX3EUA	GlobalFiler™, Investigator® 24plex, PowerPlex® Fusion 5C, PowerPlex® Fusion 6C (PDF Format), (HID Format)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
	8,9,11,12	12,14,16	22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10	17	17	2		
<hr/>						
U9FYRB	GlobalFiler™					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17,18
	13,14,15,15.2	28,29,31,32,33	11,14,15	X,Y	9,10,11,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10		2			
<hr/>						
UK9MGJ	GlobalFiler™, Investigator® 24plex, PowerPlex® Fusion 5C, PowerPlex® Fusion 6C (PDF Format), (HID Format)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
	13,14,15,15.2	28,29,31,32,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
	8,9,11,12	12,14,16	22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10	17	17	2		
<hr/>						
UMW3XP	GlobalFiler™ (PDF Format)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
	N/A	N/A	22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10	N/A	N/A	2		
<hr/>						
UNTC9A	GlobalFiler™, PowerPlex® Fusion 5C, PowerPlex® Fusion 6C					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
	8,9,11,12	12,14,16	22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10	17	17	2		
<hr/>						
W2B2W4	GlobalFiler™, PowerPlex® Fusion 6C (PDF Format)					
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
	8,9,11,12	12,14,16	22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10	17	17	2		

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 4 - STR Results

WFRY26	GlobalFiler™ (PDF Format)						
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12	
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17	
	4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18	
	10		2				
<hr/>							
WJQBX6	GlobalFiler™ (PDF Format)						
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12	
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17	
	4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18	
	10		2				
<hr/>							
XDERXL	Investigator® 24plex (HID Format) (GeneMarker V.2.9.5. (SoftGenetics))						
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12	
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17	
	4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18	
	10						
<hr/>							
XEB3A6	Investigator® 24plex						
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12	
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17	
	4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18	
	10						
<hr/>							
XWVT96	PowerPlex® Fusion 6C (HID Format) (STRmix)						
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12	
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17	
	4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
		8,9,11,12	12,14,16	22.2,25.2,29.2,31.2	8,9	8,11	14,16,18
	10	17	17				
<hr/>							
YUXEVC	GlobalFiler™ (PDF Format) (Genetica Forense Final (GFF))						
	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12	
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17	
	4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
			22.2,25.2,29.2,31.2	8,9	8,11	14,16,18	
	10		2				

TABLE 3

WebCode	Amplification Kits (File Format) (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Item	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
	DYS391	DYS570	DYS576	Y Indel		

Item 4 - STR Results

WebCode	Amplification Kits (File Format), (HID Format) (LRmix Studio 2.1.5 Community Edition)					
ZHJB9J	15,17	17,24,25	11.3,12,14	15,16	10,11,12	9,10,11,12
	13,14	15,16	18,19,20,21	8,9,10,12	9,11,12	13,17
4	13,14,15,15.2	28,29,31,33	11,14,15	X,Y	9,10,12	17.2,18,23,24
	8,9,11,12	12,14,16		8,9	8,11	14,16,18
	10					
	15,17	17,24	11.3,14	15,16	11,12	10,12
	13,14	15	19,20	8,12	11,12	13,17
4major	15,15.2	29,31	15	X	9,10	18,23
	8,9	12,14,16		9	8,11	14,18
	10					
	-	25	12	-	10	9,11
	-	16	18,21	9,10	9	-
4minor	13,14	28,33	11,14	Y	12	17.2,24
	11,12	-		8	-	16
	-					

YSTR Results

TABLE 4

WebCode	Amplification Kits (File Format)								
Item	DYF387S	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4

Item 2 - YSTR Results

2KQ4H7	PowerPlex® Y23								
		17	15,17	14	31	20	10	11	15
	2	14	11	12	21	16	16		24
		11	11	17	17		22	13	11
376NE7	PowerPlex® Y23								
		17	15,17	14	31	20	10	11	15
	2	14	11	12	21	16	16		24
		11	11	17	17		22	13	11
3R3HZ2	PowerPlex® Y23								
		17	15,17	14	31	20	10	11	15
	2	14	11	12	21	16	16		24
		11	11	17	17		22	13	11
686YY	PowerPlex® Y23								
		17	15,17	14	31	20	10	11	15
	2	14	11	12	21	16	16		24
		11	11	17	17		22	13	11
6VWYPZ	Yfiler™ Plus (PDF Format)								
	38,39	17	15,17	14	31	20	10	11	15
	2	14	11	12	21	32	16	16	11
	39	11		17	17	20	22		11
78JQAD	Yfiler™ Plus (HID Format)								
	38,39	17	15,17	14	31	20	10	11	15
	2	14	11	12	21	32	16	16	11
	39	11		17	17	20	22		11
8KN3JZ	(PDF Format)								
		17	15,17	14	31	20	10	11	15
	2	14	11	12	21	16	16		24
		11	11	17	17		22	13	11
AJ7TJY	PowerPlex® Y23 (HID Format)								
		17	15,17	14	31	20	10	11	15
	2	14	11	12	21	16	16		24
		11	11	17	17		22	13	11
AUND4V	Yfiler™ Plus (PDF Format), (HID Format)								
	38,39	17	15,17	14	31	20	10	11	15
	2	14	11	12	21	32	16	16	11
	39	11	11	17	17	20	22	13	11
B3CTR9	PowerPlex® Y23								
		17	15,17	14	31	20	10	11	15
	2	14	11	12	21	16	16		24
		11	11	17	17		22	13	11

TABLE 4

WebCode	Amplification Kits (File Format)								
	DYF387S	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
Item	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4

Item 2 - YSTR Results

B8CYMV	PowerPlex® Y23 (PDF Format)	-	17	15,17	14	31	20	10	11	15
	2	14	11	12	21	-	16	16	-	24
		-	11	11	17	17	-	22	13	11
D7P8NV	PowerPlex® Y23		17	15,17	14	31	20	10	11	15
	2	14	11	12	21		16	16		24
			11	11	17	17		22	13	11
DMDLLZ	Yfiler™ Plus, PowerPlex® Y23 (PDF Format), (HID Format)	38,39	17	15,17	14	31	20	10	11	15
	2	14	11	12	21	32	16	16	11	24
		39	11	11	17	17	20	22	13	11
ENPG8R	Yfiler™ Plus (HID Format)	38,39	17	15,17	14	31	20	10	11	15
	2	14	11	12	21	32	16	16	11	24
		39	11		17	17	20	22		11
EQ72RL	Yfiler™ Plus (PDF Format)	38,39	17	15,17	14	31	20	10	11	15
	2	14	11	12	21	32	16	16	11	24
		39	11		17	17	20	22		11
F3JKPM	PowerPlex® Y23 (PDF Format)		17	15,17	14	31	20	10	11	15
	2	14	11	12	21		16	16		24
			11	11	17	17		22	13	11
GT9J4M	Yfiler™ Plus (PDF Format)	38,39	17	15,17	14	31	20	10	11	15
	2	14	11	12	21	32	16	16	11	24
		39	11		17	17	20	22		11
JWL3ZL	Yfiler™ Plus (PDF Format)	38,39	17	15,17	14	31	20	10	11	15
	2	14	11	12	21	32	16	16	11	24
		39	11		17	17	20	22		11
K6BDNM	PowerPlex® Y23 (HID Format)		17	15,17	14	31	20	10	11	15
	2	14	11	12	21		16	16		24
			11	11	17	17		22	13	11
KW2NAN	PowerPlex® Y23 (PDF Format)		17	15,17	14	31	20	10	11	15
	2	14	11	12	21		16	16		24
			11	11	17	17		22	13	11

TABLE 4

WebCode	Amplification Kits (File Format)								
	DYF387S	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
Item	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4

Item 2 - YSTR Results

LURVVF	Yfiler™ Plus (HID Format)								
	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
2	39	11		17	17	20	22		11
MNVQFG	Yfiler™ Plus (HID Format)								
	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
2	39	11		17	17	20	22		11
NKFJRG	PowerPlex® Y23 (PDF Format)								
		17	15,17	14	31	20	10	11	15
	14	11	12	21		16	16		24
2		11	11	17	17		22	13	11
NRPMCL	Yfiler™ Plus								
	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
2	39	11		17	17	20	22		11
NVAZFH	PowerPlex® Y23 (HID Format)								
		17	15,17	14	31	20	10	11	15
	14	11	12	21		16	16		24
2		11	11	17	17		22	13	11
P6TQFF	Yfiler™ Plus (HID Format)								
	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
2	39	11		17	17	20	22		11
PDQHNA	Yfiler™ Plus (PDF Format)								
	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
2	39	11		17	17	20	22		11
PYQJ2C	Yfiler™ Plus (HID Format)								
	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
2	39	11		17	17	20	22		11
R3JMHA	Yfiler™ Plus (PDF Format)								
	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
2	39	11		17	17	20	22		11
TW86HQ	Yfiler™ Plus (HID Format)								
	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
2	39	11		17	17	20	22		11

TABLE 4

WebCode	Amplification Kits (File Format)								
	DYF387S	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
Item	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4

Item 2 - YSTR Results

TX3EUA	Yfiler™ Plus, PowerPlex® Y23 (PDF Format), (HID Format)								
	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
2	39	11	11	17	17	20	22	13	11
U9FYRB	Yfiler™ Plus								
	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
2	39	11		17	17	20	22		11
UK9MGJ	Yfiler™ Plus, PowerPlex® Y23 (PDF Format), (HID Format)								
	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
2	39	11	11	17	17	20	22	13	11
UMW3XP	Yfiler™ Plus (PDF Format)								
	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
2	39	11	N/A	17	17	20	22	N/A	11
UNTC9A	Yfiler™ Plus, PowerPlex® Y23								
	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
2	39	11	11	17	17	20	22	13	11
W2B2W4	Yfiler™ Plus, PowerPlex® Y23 (PDF Format)								
	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
2	39	11	11	17	17	20	22	13	11
WFRY26	Yfiler™ Plus (PDF Format)								
	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
2	39	11		17	17	20	22		11
WJQBX6	Yfiler™ Plus (PDF Format)								
	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
2	39	11		17	17	20	22		11
XDERXL	PowerPlex® Y23 (HID Format)								
		17	15,17	14	31	20	10	11	15
	14	11	12	21		16	16		24
2		11	11	17	17		22	13	11
ZHJB9J	PowerPlex® Y23 (PDF Format), (HID Format)								
		17	15,17	14	31	20	10	11	15
	14	11	12	21		16	16		24
2		11	11	17	17		22	13	11

TABLE 4

WebCode	Amplification Kits (File Format)								
Item	DYF387S	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4

Item 3 - YSTR Results

2KQ4H7	PowerPlex® Y23								
		14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	16,17	16,17		24,25
		11,14	11,12	17	17,18		22,23	10,13	11,12
376NE7	PowerPlex® Y23								
		14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	16,17	16,17		24,25
		11,14	11,12	17	17,18		22,23	10,13	11,12
3R3HZ2	PowerPlex® Y23								
		14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	16,17	16,17		24,25
		11,14	11,12	17	17,18		22,23	10,13	11,12
686YY	PowerPlex® Y23								
		14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	16,17	16,17		24,25
		11,14	11,12	17	17,18		22,23	10,13	11,12
3major		14	11,13	13	29	25	11	14	13
	3	15	12	12	18	17	17		25
		14	12		18		23	10	12
3minor		17	15,17	14	31	20	10	11	15
	3	14	11	21		16	16		24
		11	11		17		22	13	11
6VWYPZ	Yfiler™ Plus (PDF Format)								
	36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11
		37,39	11,14	17	17,18	20,23	22,23		24,25
				17	17,18	20,23	22,23		11,12
78JQAD	Yfiler™ Plus (HID Format)								
	36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11
		37,39	11,14	17	17,18	20,23	22,23		24,25
				17	17,18	20,23	22,23		11,12
8KN3JZ	(PDF Format)								
		14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	16,17	16,17		24,25
		11,14	11,12	17	17,18		22,23	10,13	11,12
AJ7TJY	PowerPlex® Y23 (HID Format)								
		14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	16,17	16,17		24,25
		11,14	11,12	17	17,18		22,23	10,13	11,12
AUND4V	Yfiler™ Plus, PowerPlex® Y23 (PDF Format), (HID Format)								
	36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11
		37,39	11,14	17	17,18	20,23	22,23		24,25
				17	17,18	20,23	22,23	10,13	11,12

TABLE 4

WebCode	Amplification Kits (File Format)								
Item	DYF387S	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4

Item 3 - YSTR Results

B3CTR9	PowerPlex® Y23									
		14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15	
	3	14,15	11,12	12	18,21	16,17	16,17		24,25	
		11,14	11,12	17	17,18		22,23	10,13	11,12	
3major		14	11,13	13	29	25	11	14	13	
		15	12	12	18	17	17		25	
		14	12	17	18		23	10	12	
3minor		17	15,17	14	31	20	10	11	15	
		14	11	12	21	16	16		24	
		11	11	17	17		22	13	11	
B8CYMV	PowerPlex® Y23 (PDF Format)									
		-	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	-	16,17	16,17	-	24,25
		-	11,14	11,12	17	17,18	-	22,23	10,13	11,12
D7P8NV	PowerPlex® Y23									
		14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15	
	3	14,15	11,12	12	18,21	16,17	16,17		24,25	
		11,14	11,12	17	17,18		22,23	10,13	11,12	
DMDLLZ	Yfiler™ Plus, PowerPlex® Y23 (PDF Format), (HID Format)									
	36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15	
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11	24,25
	37,39	11,14	11,12	17	17,18	20,23	22,23	10,13	11,12	
ENPG8R	Yfiler™ Plus (HID Format)									
	36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15	
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11	24,25
	37,39	11,14		17	17,18	20,23	22,23		11,12	
EQ72RL	Yfiler™ Plus (PDF Format)									
	36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15	
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11	24,25
	37,39	11,14		17	17,18	20,23	22,23		11,12	
F3JKPM	PowerPlex® Y23 (PDF Format)									
		14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15	
	3	14,15	11,12	12	18,21	16,17	16,17		24,25	
		11,14	11,12	17	17,18		22,23	10,13	11,12	
GT9J4M	Yfiler™ Plus (PDF Format)									
	36,37,38,39	14,17	11,13,15,17	13,14	29,30,31	20,25	10,11	11,14	13,15	
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11	24,25
	37,38,39	11,14		17	17,18,23	20,23	22,23		11,12	

TABLE 4

WebCode	Amplification Kits (File Format)								
	DYF387S	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
Item	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4

Item 3 - YSTR Results

JWL3ZL	Yfiler™ Plus (PDF Format)								
	36,37,38,39	14,17	11,13,15,17	13,14	29,30,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11
	37,38,39	11,14		17	17,18,23	20,23	22,23		11,12
3major	36,37	14	11,13	13	29	25	11	14	13
	15	12	12	18	31	17	17	11	25
	37	14		17	18	23	23		12
3minor	38,39	17	15,17	14	30,31	20	10	11	15
	14	11		21	32	16	16		24
	38,39	11			17,23	20	22		11
K6BDNM	PowerPlex® Y23 (HID Format)								
		14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21		16,17	16,17	24,25
		11,14	11,12	17	17,18		22,23	10,13	11,12
KW2NAN	PowerPlex® Y23 (HID Format)								
		14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21		16,17	16,17	24,25
		11,14	11,12	17	17,18		22,23	10,13	11,12
LURVVF	Yfiler™ Plus (HID Format)								
	36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11
	37,39	11,14		17	17,18	20,23	22,23		11,12
3major	36,37	14	11,13	13	29	25	11	14	13
	15,	12	12	18	31	17	17	11	25
	37	14		17	18	23	23		12
3minor	38,39	17	15,17	14	31	20	10	11	15
	14	11	12	21	32	16	16	11	24
	39	11		17	17	20	22		11
MNVQFG	Yfiler™ Plus (HID Format)								
	36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11
	37,39	11,14		17	17,18	20,23	22,23		11,12
NKFJRG	PowerPlex® Y23 (PDF Format)								
		14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21		16,17	16,17	24,25
		11,14	11,12	17	17,18		22,23	10,13	11,12
3major		14	11,13	13	29	25	11	14	13
	15	12		18		17	17		25
		14	12		18		23	10	12
3minor		17	15,17	14	31	20	10	11	15
	14	11		21		16	16		24
		11	11		17		22	13	11

TABLE 4

WebCode	Amplification Kits (File Format)								
	DYF387S	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
Item	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4

Item 3major - YSTR Results

NRPMCL	Yfiler™ Plus									
		36,37	14	11,13	13	29	25	11	14	13
	3major	15	12	12	18	31	17	17	11	25
		37	14		17	18	23	23		12
3minor		38,39	17	15,17	14	30,31	20	10	11	15
		14	11		21	32	16	16		24
		38,39	11			17,23	20	22		11
NVAZFH	PowerPlex® Y23 (HID Format)									
			14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,12	13,15
	3	14,15	11,12	12	18,21		16,17	16,17		24,25
			11,14	11,12	17	17,18		22,23	10,13	11,12
P6TQFF	Yfiler™ Plus (HID Format)									
		36,37,38,39	14,17	11,13,15,17	13,14	29,30,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11	24,25
		37,38,39	11,14		17	17,18	20,23	22,23		11,12
3major		36,37	14	11,13	13	29	25	11	14	13
		15	12	12	18	31	17	17	11	25
		37	14		17	18	23	23		12
3minor		38,39	17	15,17	14	31	20	10	11	15
		14	11	12	21	32	16	16	11	24
		39	11		17	17	20	22		11
PDQHNA	Yfiler™ Plus (PDF Format)									
		36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11	24,25
		37,39	11,14		17	17,18	20,23	22,23		11,12
PYQJ2C	Yfiler™ Plus (HID Format)									
		36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11	24,25
		37,39	11,14		17	17,18	20,23	22,23		11,12
R3JMHA	Yfiler™ Plus (PDF Format)									
		36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11	24,25
		37,39	11,14		17	17,18	20,23	22,23		11,12
TW86HQ	Yfiler™ Plus (HID Format)									
		36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11	24,25
		37,39	11,14		17	17,18	20,23	22,23		11,12
TX3EUA	Yfiler™ Plus, PowerPlex® Y23 (PDF Format), (HID Format)									
		36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11	24,25
		37,39	11,14	11,12	17	17,18	20,23	22,23	10,13	11,12

TABLE 4

WebCode	Amplification Kits (File Format)								
	DYF387S	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
Item	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4

Item 3 - YSTR Results

U9FYRB	Yfiler™ Plus								
	36,37,38,39	14,17	11,13,15,17	13,14	29,30,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11
	37,38,39	11,14		17	17,18,23	20,23	22,23		11,12
UK9MGJ	Yfiler™ Plus, PowerPlex® Y23 (PDF Format), (HID Format)								
	36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11
	37,38,39	11,14	11,12	17	17,18	20,23	22,23	10,13	11,12
UMW3XP	Yfiler™ Plus (PDF Format)								
	36,37,38,39	14,17	11,13,15,17	13,14	29,30,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11
	37,38,39	11,14	N/A	17	17,18	20,23	22,23	N/A	11,12
UNTC9A	Yfiler™ Plus, PowerPlex® Y23								
	36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11
	37,39	11,14	11,12	17	17,18	20,23	22,23	10,13	11,12
W2B2W4	Yfiler™ Plus, PowerPlex® Y23 (PDF Format)								
	36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11
	37,39	11,14	11,12	17	17,18	20,23	22,23	10,13	11,12
3major	36,37	14	11,13	13	29	25	11	14	13
	3	15	12	18	31	17	17		25
	37	14	12		18	23	23	10	12
3minor	38,39	17	15,17	14	31	20	10	11	15
	3	14	11	21	32	16	16		24
	39	11	11		17	20	22	13	11
WFRY26	Yfiler™ Plus (PDF Format)								
	36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11
	37,39	11,14		17	17,18	20,23	22,23		11,12
WJQBX6	Yfiler™ Plus (PDF Format)								
	36,37,38,39	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	31,32	16,17	16,17	11
	37,39	11,14		17	17,18	20,23	22,23		11,12
XDERXL	PowerPlex® Y23 (HID Format)								
		14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15
	3	14,15	11,12	12	18,21	16,17	16,17		24,25
		11,14	11,12	17	17,18		22,23	10,13	11,12

TABLE 4

WebCode	Amplification Kits (File Format)								
Item	DYF387S	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4

Item 3 - YSTR Results

ZHJB9J	PowerPlex® Y23 (PDF Format), (HID Format)								
	14,17	11,13,15,17	13,14	29,31	20,25	10,11	11,14	13,15	
3	14,15	11,12	12	18,21		16,17	16,17	24,25	
	11,14	11,12	17	17,18		22,23	10,13	11,12	
	14	11,13	13	29	25	11	14	13	
3major	15	12	12	18	17	17		25	
	14	12	17	18		23	10	12	
	17	15,17	14	31	20	10	11	15	
3minor	14	11	-	21	16	16		24	
	11	11	-	17		22	13	11	

TABLE 4

WebCode	Amplification Kits (File Format)								
Item	DYF387S	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4

Item 4 - YSTR Results

2KQ4H7	PowerPlex® Y23 (HID Format)								
		17	15,17	14	31	20	10	11	15
	4	14	11	12	21	16	16		24
		11	11	17	17		22	13	11
376NE7	PowerPlex® Y23								
		17	15,17	14	31	20	10	11	15
	4	14	11	12	21	16	16		24
		11	11	17	17		22	13	11
3R3HZ2	PowerPlex® Y23								
		17	15,17	14	31	20	10	11	15
	4	14	11	12	21	16	16		24
		11	11	17	17		22	13	11
686YYY	PowerPlex® Y23								
		17	15,17	14	31	20	10	11	15
	4	14	11	12	21	16	16		24
		11	11	17	17		22	13	11
6VWYPZ	Yfiler™ Plus (PDF Format)								
	38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11
	39	11		17	17	20	22		11
78JQAD	Yfiler™ Plus (HID Format)								
	38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11
	39	11		17	17	20	22		11
8KN3JZ									
		17	15,17	14	31	20	10	11	15
	4	14	11	12	21	16	16		24
		11	11	17	17		22	13	11
AJ7TJY	PowerPlex® Y23 (HID Format)								
		17	15,17	14	31	20	10	11	15
	4	14	11	12	21	16	16		24
		11	11	17	17		22	13	11
AUND4V	Yfiler™ Plus, PowerPlex® Y23 (PDF Format), (HID Format)								
	38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11
	39	11	11	17	17	20	22	13	11
B3CTR9	PowerPlex® Y23								
		17	15,17	14	31	20	10	11	15
	4	14	11	12	21	16	16		24
		11	11	17	17		22	13	11

TABLE 4

WebCode	Amplification Kits (File Format)								
Item	DYF387S	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4

Item 4 - YSTR Results

B8CYMV	PowerPlex® Y23 (PDF Format)	-	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	-	16	16	-	24
		-	11	11	17	17	-	22	13	11
D7P8NV	PowerPlex® Y23		17	15,17	14	31	20	10	11	15
	4	14	11	12	21		16	16		24
			11	11	17	17		22	13	11
DMDLLZ	Yfiler™ Plus, PowerPlex® Y23 (PDF Format), (HID Format)	38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11	24
		39	11	11	17	17	20	22	13	11
ENPG8R	Yfiler™ Plus (HID Format)	38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11	24
		39	11		17	17	20	22		11
EQ72RL	Yfiler™ Plus (PDF Format)	38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11	24
		39	11		17	17	20	22		11
F3JKPM	PowerPlex® Y23 (PDF Format)		17	15,17	14	31	20	10	11	15
	4	14	11	12	21		16	16		24
			11	11	17	17		22	13	11
GT9J4M	Yfiler™ Plus (PDF Format)	38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11	24
		39	11		17	17	20	22		11
JWL3ZL	Yfiler™ Plus (PDF Format)	38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11	24
		39	11		17	17	20	22		11
4major		38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11	24
		39	11		17	17	20	22		11
K6BDNM	PowerPlex® Y23 (HID Format)		17	15,17	14	31	20	10	11	15
	4	14	11	12	21		16	16		24
			11	11	17	17		22	13	11

TABLE 4

WebCode	Amplification Kits (File Format)								
Item	DYF387S	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4

Item 4 - YSTR Results

KW2NAN	PowerPlex® Y23 (PDF Format)									
		17	15,17	14	31	20	10	11	15	
	4	14	11	12	21	16	16		24	
		11	11	17	17		22	13	11	
LURVVF	Yfiler™ Plus (HID Format)									
		38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11	24
		39	11		17	17	20	22		11
MNVQFG	Yfiler™ Plus (HID Format)									
		38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11	24
		39	11		17	17	20	22		11
NKFJRG	PowerPlex® Y23 (PDF Format)									
		17	15,17	14	31	20	10	11	15	
	4	14	11	12	21	16	16		24	
		11	11	17	17		22	13	11	
NRPMCL	Yfiler™ Plus									
		38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11	24
		39	11		17	17	20	22		11
NVAZFH	PowerPlex® Y23 (HID Format)									
		17	15,17	14	31	20	10	11	15	
	4	14	11	12	21	16	16		24	
		11	11	17	17		22	13	11	
P6TQFF	Yfiler™ Plus (HID Format)									
		38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11	24
		39	11		17	17	20	22		11
PDQHNA	Yfiler™ Plus (PDF Format)									
		38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11	24
		39	11		17	17	20	22		11
PYQJ2C	Yfiler™ Plus (HID Format)									
		38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11	24
		39	11		17	17	20	22		11
R3JMHA	Yfiler™ Plus (PDF Format)									
		38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11	24
		39	11		17	17	20	22		11

TABLE 4

WebCode	Amplification Kits (File Format)								
	DYF387S	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
Item	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4

Item 4 - YSTR Results

TW86HQ	Yfiler™ Plus (HID Format)								
	38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11
	39	11		17	17	20	22		11
TX3EUA	Yfiler™ Plus, PowerPlex® Y23 (PDF Format), (HID Format)								
	38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11
	39	11	11	17	17	20	22	13	11
U9FYRB	Yfiler™ Plus								
	38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11
	39	11		17	17	20	22		11
UK9MGJ	Yfiler™ Plus, PowerPlex® Y23 (PDF Format), (HID Format)								
	38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11
	39	11	11	17	17	20	22	13	11
UMW3XP	Yfiler™ Plus (PDF Format)								
	38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11
	39	11	N/A	17	17	20	22	N/A	11
UNTC9A	Yfiler™ Plus, PowerPlex® Y23								
	38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11
	39	11	11	17	17	20	22	13	11
W2B2W4	Yfiler™ Plus, PowerPlex® Y23 (PDF Format)								
	38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11
	39	11	11	17	17	20	22	13	11
WFRY26	Yfiler™ Plus (PDF Format)								
	38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11
	39	11		17	17	20	22		11
WJQBX6	Yfiler™ Plus (PDF Format)								
	38,39	17	15,17	14	31	20	10	11	15
	4	14	11	12	21	32	16	16	11
	39	11		17	17	20	22		11
XDERXL	PowerPlex® Y23 (HID Format)								
		17	15,17	14	31	20	10	11	15
	4	14	11	12	21		16	16	24
		11	11	17	17		22	13	11

TABLE 4

WebCode	Amplification Kits (File Format)								
Item	DYF387S	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4

Item 4 - YSTR Results

ZHJB9J	PowerPlex® Y23 (PDF Format), (HID Format)								
		17	15,17	14	31	20	10	11	15
4	14	11	12	21		16	16		24
		11	11	17	17		22	13	11
		17	15,17	14	31	20	10	11	15
4major	14	11	12	21		16	16		24
		11	11	17	17		22	13	11

DNA Conclusions

Based on the examination of the DNA profiles provided, could the Victim (Item 1) and/or the Suspect (Item 2) be included as a possible contributor to the questioned Item?

TABLE 5

WebCode	Item 3 Conclusion			Item 4 Conclusion		
	# of Contributors	Item 1	Item 2	# of Contributors	Item 1	Item 2
2KQ4H7	4	Included	Included	2	Included	Included
376NE7	3	Included	Included	2	Included	Included
3R3HZ2	3	Included	Included	2	Included	Included
686YYY	3	Included	Included	2	Included	Included
6AWWDW	at least 3	Inconclusive / Uninterpretable	Inconclusive / Uninterpretable	two	Included	Included
6VWYPZ	at least 3	Included	Included	at least 2	Included	Included
78JQAD	3	Included	Included	2	Included	Included
8KN3JZ	3	Included	Included	2	Included	Included
A96A34	3	Included	Included	2	Included	Included
AJ7TJY	3	Included	Included	2	Included	Included
AUND4V	3	Included	Included	2	Included	Included
B3CTR9	3	Included	Included	2	Included	Included
B4943R	3	Included	Included	2	Included	Included
B8CYMV	3	Included	Included	2	Included	Included
D7P8NV	3	Included	Included	2	Included	Included
DA6LD8	At least 3	Included	Included	2	Included	Included
DMDLLZ	≥3 contributors (including ≥ 1 female and ≥ 2 males)	Included	Included	≥2 contributors (including ≥ 1 female and ≥ 1 male)	Included	Included
DQDXGY	at least three (3) contributors, including at least two (2) male individuals	Included	Included	at least two (2) contributors, including one (1) male individual	Included	Included
ENPG8R	3	Included	Included	2	Included	Included

TABLE 5

WebCode	Item 3 Conclusion			Item 4 Conclusion		
	# of Contributors	Item 1	Item 2	# of Contributors	Item 1	Item 2
EQ72RL	3	Included	Included	2	Included	Included
F3JKPM	3	Included	Included	2	Included	Included
GT9J4M	4	Included	Included	2	Included	Included
JWL3ZL	4	Included	Included	3	Included	Included
K6BDNM	3	Included	Included	2	Included	Included
KW2NAN	3	Included	Included	2	Included	Included
LURVVF	3	Included	Included	2	Included	Included
MNVQFG	3	Included	Included	2	Included	Included
NKFJRG	3	Included	Included	2	Included	Included
NRPMCL	minimum 3	Included	Included	minimum 2	Included	Included
NVAZFH	3	Included	Included	2	Included	Included
P6TQFF	3	Included	Included	2	Included	Included
PDQHNA	3 (1F + 2M)	Included	Included	2 (1F + 1M)	Included	Included
PYQJ2C	3	Included	Included	2	Included	Included
R3JMHA	3	Included	Included	2	Included	Included
TW86HQ	3	Included	Included	2	Included	Included
TX3EUA	3	Included	Included	2	Included	Included
U9FYRB	3	Included	Included	2	Included	Included
UK9MGJ	4	Included	Included	2	Included	Included
UMW3XP	3 or more	Included	Included	2	Included	Included
UNTC9A	3	Included	Included	2	Included	Included
W2B2W4	3	Included	Included	2	Included	Included
WFRY26	3	Included	Included	2	Included	Included

TABLE 5

WebCode	# of Contributors	Item 3 Conclusion		# of Contributors	Item 4 Conclusion	
		Item 1	Item 2		Item 1	Item 2
WJQBX6	3	Included	Included	2	Included	Included
XDERXL	3	Included	Included	2	Included	Included
XEB3A6	3	Included	Included	2	Included	Included
XWVT96	3	Included	Included	2	Included	Included
YUXEVC	3	Inconclusive / Uninterpretable	Inconclusive / Uninterpretable	2	Included	Included
ZHJB9J	3	Included	Included	2	Included	Included

Conclusions Response Summary				Participants reporting conclusions: 48	
Based on the examination of the DNA profiles provided, could the Victim (Item 1) and/or the Suspect (Item 2) be included as a possible contributor to the questioned Item?					
Responses		Item 3		Item 4	
		<u>Item 1</u>	<u>Item 2</u>	<u>Item 1</u>	<u>Item 2</u>
	Included	46	46	48	48
	Excluded	0	0	0	0
	Inconclusive	2	2	0	0
No Response	0	0	0	0	
	Total	48	48	48	48

Statistical Analysis for Item 3

TABLE 6

WebCode	Item 3 Methods & Results
2KQ4H7	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The genetic profile obtained from Item 3 is interpreted as a mixture of DNA from four contributors. Item 1 (victim) cannot be excluded as a possible contributor to this mixture. Given this genetic profile, assuming four contributors, and assuming the presence of the suspect's profile, it is 41.3 quadrillion times more likely to observe this genetic profile if Item 2 (suspect) and Item 1 (victim) are contributors than if Item 2 (suspect) and three unknown individuals are the contributors.</p> <p>Database(s): NIST</p>
376NE7	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA result obtained from Item 3 is consistent with a mixture from at least three (3) contributors, including at least two (2) males. The mixture is approximately 3.33×10^{25} times more likely to occur (very strong support for inclusion) if the victim, the suspect and an unknown, unrelated individual are contributors, rather than if the suspect and two (2) unknown, unrelated individuals are contributors.</p> <p>Database(s): NIST 1036_Asian population</p>
3R3HZ2	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: LR-1 8,33810E009, dropout 0,1. LR-2 5,83309E011, dropout 0,1.</p> <p>Database(s): [Location Identifying Database]</p>
686YYY	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: [Participant did not report statistical analysis.]</p> <p>Database(s): NIST(2017r.) Population of Asian (sample size=97)</p>
6VWYPZ	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The mixed DNA profile are 46 billion (46e9), 270 billion (270e9) and 5.1 trillion (5.1e12) TIMES more likely; IF they originated from the sources represented by Item 1 and Item 2, and one unknown unrelated individual RATHER THAN; IF they originated from the source represented by Item 2 and two unknown unrelated individuals as calculated based on the [Location Identifying Database].</p> <p>Database(s): [Location Identifying Database]</p>
78JQAD	<p>Method(s): [Participant did not report a method.]</p> <p>Stats Analysis: No stats calculated.</p> <p>Database(s): [Participant did not report database(s).]</p>
8KN3JZ	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA result obtained from the shirt (Item 3) allegedly taken from the suspect is consistent with a mixture from at least three (3) contributors, including at least two (2) males. The mixture is approximately 2.56×10^{25} times more likely to occur (very strong support for inclusion) if the suspect, the victim and an unknown, unrelated individual are contributors, rather than if the suspect and two (2) unknown, unrelated individuals are contributors.</p> <p>Database(s): NIST1036_ASIAN</p>
A96A34	<p>Method(s): Random Match Probability</p> <p>Stats Analysis: Item 1 RMP [Location Identifying Population] = 1.94749×10^{31}. Item 1 RMP [Location Identifying Population] = 9.16239×10^{28}. Item 2 RMP [Location Identifying Population] = 2.16321×10^{32}. Item 2 RMP [Location Identifying Population] = 2.50829×10^{31}.</p> <p>Database(s): [Participant did not report database(s).]</p>

TABLE 6

WebCode	Item 3 Methods & Results
AJ7TJY	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA result obtained from ITEM3 is consistent with a mixture from at least three (3) contributors, including at least two (2) males. The mixture is approximately 5.25×10^{29} times more likely to occur (very strong support for inclusion) if the suspect, the victim and an unknown, unrelated individual are contributors, rather than if the suspect and two (2) unknown, unrelated individuals are contributors.</p> <p>Database(s): STRmix</p>
AUND4V	<p>Method(s): see below</p> <p>Stats Analysis: Item #1 (victim) and Item #2 (Suspect) are included as contributors to the Globalfiler and Fusion6C DNA profiles from item #3. Item #2 (suspect) or a member of the same paternal lineage, is included as a contributor to the Yfiler and PPY23 YSTR DNA profiles from item #3. Probabilistic Genotyping is outsourced and performed upon request.</p> <p>Database(s): Probabilistic Genotyping is outsourced and performed upon request.</p>
B3CTR9	<p>Method(s): Likelihood Ratio, Random Match Probability, Lab Retriever</p> <p>Stats Analysis: A mixed DNA profile (PowerPlex™ Fusion 5C) consisting of DNA from at least three contributors was obtained from the suspect's shirt (item CTS-24-5882-3). The DNA profile from CTS-24-5882-3 is consistent with the DNA profile of CTS-24-5881-1. Therefore, the individual represented by the reference sample, item CTS-24-5882-1 (victim), cannot be excluded as a contributor of the DNA profile obtained from the suspect's shirt (item CTS-24-5882-3). The probability of selecting a random unrelated individual having a DNA profile identical to CTS-24-5882-1 at the loci observed is 1 in 5.97×10^{33} for African [Location Identifying Population], 1 in 2.29×10^{31} for Caucasian [Location Identifying Population], 1 in 4.22×10^{31} for Hispanic [Location Identifying Population], and 1 in 1.28×10^{30} for Asian [Location Identifying Population]. The DNA profile of CTS-24-5882-4 is consistent with the DNA profile of CTS-24-5882-2. Therefore, the individual represented by the reference sample, item CTS-24-5882-2 (suspect), cannot be excluded as a contributor of the DNA profile obtained from the suspect's shirt (item CTS-24-5882-3). The probability of selecting a random unrelated individual having a DNA profile identical to CTS-24-5882-1 at the loci observed is 1 in 3.97×10^{33} for African [Location Identifying Population], 1 in 8.54×10^{32} for Caucasian [Location Identifying Population], 1 in 9.93×10^{32} for Hispanic [Location Identifying Population], and 1 in 2.12×10^{31} for Asian [Location Identifying Population]. The probability of selecting a random unrelated individual having a DNA profile identical to the unknown major contributor at the loci observed is 1 in 1.57×10^{32} for African [Location Identifying Population], 1 in 1.95×10^{29} for Caucasian [Location Identifying Population], 1 in 4.28×10^{30} for Hispanic [Location Identifying Population], and 1 in 3.56×10^{30} for Asian [Location Identifying Population]. A mixed DNA profile (PowerPlex Y23) was obtained from the suspect's shirt (item CTS-24-5882-3). The individual represented by the reference sample, item CTS-24-5882-2 (suspect), cannot be excluded as the minor contributor of the DNA profile obtained from the suspect's shirt (item CTS-24-5882-3). The selected haplotype is found 0 times out of 3,149 haplotypes in the [Country] for the Asian [Location Identifying Population]. Applying the 95% upper confidence interval results in 1 in 1,052 in the [Country] for the Asian [Location Identifying Population]. The haplotype for the unknown major contributor is found 0 times out of 3,149 haplotypes in the [Country] for the Asian [Location Identifying Population]. Applying the 95% upper confidence interval results in 1 in 1,052 in the [Country] for the Asian [Location Identifying Population].</p> <p>Database(s): Promega, YHRD</p>
B4943R	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The evidence is 5.4 sextillion times more likely if the Female victim (Item 1) is a contributor to the DNA mixture than if she is not a contributor. The evidence is 27 sextillion times more likely if the Male suspect (Item 2) is a contributor to the DNA mixture than if he is not a contributor. Further comparison may be done on the remaining component of this mixture.</p> <p>Database(s): FBI extended.</p>

TABLE 6

WebCode	Item 3 Methods & Results
B8CYMV	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA result obtained from stain on suspect's shirt (Item 3) is consistent with a mixture from at least three (3) contributors, including at least two (2) males. The mixture is approximately 2.72E25 times more likely to occur (very strong support for inclusion) if the suspect (Item 2), the victim (Item 1) and an unknown, unrelated individual are contributors, rather than if the suspect (Item 2) and two (2) unknown, unrelated individuals are contributors.</p> <p>Database(s): [Participant did not report database(s).]</p>
D7P8NV	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA result obtained from the suspect's shirt [Item 3] is consistent with a mixture from at least three (3) contributors, including at least two (2) males. The mixture is approximately 2.32E25 times more likely to occur (very strong support for inclusion) if the suspect, the victim and an unknown, unrelated individual are contributors, rather than if the suspect and two (2) unknown, unrelated individuals are contributors. Y-STR analysis of the suspect's shirt [Item 3] produced a result which is consistent with a Y-STR mixture from at least two (2) male contributors. The suspect cannot be excluded as being a contributor to this Y-STR mixture. In addition, all patrilineal related males and an unknown number of unrelated males cannot be excluded as being a contributor to this Y-STR mixture.</p> <p>Database(s): NIST 1036 U.S. Population Dataset - Asian</p>
DMDLLZ	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Under the assumption that the VICTIM (Item 1) and two unrelated persons selected at random from the general population are contributors to this mixture, the likelihood of observing the mixed source profile from the STAIN ON SUSPECT'S SHIRT (Item 3) is $\geq 1,000,000$ times greater (actual LR available upon request) than if it is assumed that three unrelated persons selected at random from the general population are the contributors to this mixed-source sample. Under the assumption that the SUSPECT (Item 2) and two unrelated persons selected at random from the general population are contributors to this mixture, the likelihood of observing the mixed source profile from the STAIN ON SUSPECT'S SHIRT (Item 3) is $\geq 1,000,000$ times greater (actual LR available upon request) than if it is assumed that three unrelated persons selected at random from the general population are the contributors to this mixed-source sample. The YSTR profile presents as a mixture of at least two unrelated males. This YSTR mixture was deemed not suitable for further statistical analysis without deconvolution.</p> <p>Database(s): Revised-NIST-1036-Allele Frequencies</p>
DQDXGY	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: LR = 86.994x10²⁴; Assuming a three-person mixture, the DNA results provide very strong support for the conditions specified under H1.</p> <p>Database(s): Allele frequencies were obtained from NIST 1036 Revised US Population Database (July 2017) All2017 at https://strbase.nist.gov/NISTpop.htm.</p>
ENPG8R	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The obtained DNA result is approximately 1,2331 x 10e9 times more likely to occur if originated from Suspect and Victim and 1 unknown individual than from Suspect and 2 unknown individuals in [Location Identifying Population]. Suspect + Victim + 1 Unknown / Suspect + 2 Unknown</p> <p>Database(s): STRidER</p>
EQ72RL	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The mixed DNA profile are 46 billion (46e9), 270 billion (270e9) and 5.1 trillion (5.1e12) TIMES more likely, if they originated from the sources represented by Item1, Item2 and one unknown unrelated individual RATHER THAN, if they originated from the source represented by Item2 and two unknown unrelated individuals as calculated based on [Location Identifying Database].</p> <p>Database(s): [Location Identifying Database]</p>

TABLE 6

WebCode	Item 3 Methods & Results
F3JKPM	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: LR=2,15E10. Dropout=0,19.</p> <p>Database(s): Steffen, C.R., Coble, M.D., Gettings, K.B., Vallone, P.M. (2017) Corrigendum to 'U.S. Population Data for 29 Autosomal STR Loci' [Forensic Sci. Int. Genet. 7 (2013) e82-e83]. Forensic Sci. Int. Genet. 31, e36–e40</p>
GT9J4M	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA profile is greater than 100 billion times more likely if it originates from Item 1, Item 2 and two unknown individuals than if it originates from Item 2 and three unknown individuals from the [Location Identifying Population].</p> <p>Database(s): [Location Identifying Database]</p>
JWL3ZL	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Statistical analysis was done using LR MIX Studio and the result obtained is 3.66E10</p> <p>Database(s): [Location Identifying Database]</p>
K6BDNM	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The mixture is approximately 33,300,000,000,000,000,000,000 times more likely to occur if the suspect, the victim and an unknown, unrelated individual are contributors, rather than if the suspect and two (2) unknown, unrelated individuals are contributors.</p> <p>Database(s): NIST1036 Asian</p>
KW2NAN	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA result obtained from Item 3 is consistent with a mixture from at least three (3) contributors, including at least two (2) males. The mixture is approximately 2.49×10^{25} times more likely to occur (very strong support for inclusion) if the suspect, the victim and one (1) unknown, unrelated individual are contributors, rather than if the suspect and two (2) unknown, unrelated individuals are contributors. Y-STR analysis of item 3 produced results which are consistent with a Y-STR mixture from at least two (2) male contributors. The suspect cannot be excluded as being a contributor to this Y-STR mixture. In addition, all patrilineal related males and an unknown number of unrelated males cannot be excluded as being a contributor to this Y-STR mixture.</p> <p>Database(s): NIST1036_ASIAN_FBI_EXTENDED_AFAMBAHJAM</p>
LURVVF	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Stutter filter was applied on DNA profiling. Item 3 (shirt) indicates the presence of a mixture. The number of alleles indicates that the mixture may be a three person mixture. Item 3 (shirt) could have originated from Victim (Item 1), and Suspect (Item 2) and one unknown contributor. The unknown male DNA profile can be deconvoluted as the major component of the stain. / Common parameters used for statistical analyses: P(dropin) = 0.03; Pmin = 0.001; FST = 0.015 / Hp hypothesis: POI + 2 unrelated unknown contributors / Hd hypothesis: 3 unrelated unknown contributors / LrmixStudio v2.1.5 (PowerPlex Fusion 6C and Globalfiler DNA profile replicates): P(dropout) = 0.1; POI: Victim (Item 1) -> LR = 5.2E+11; POI: Suspect (Item 2) -> LR = 1.8E+11 / DNAs v2.7.12 MLE (PowerPlex Fusion 6C DNA profile): P(dropout lambda) = 0.01; Backward stutter model was applied. POI: Victim (Item 1) -> LR = 1.2E+22; POI: Suspect (Item 2) -> LR = 2.1E+18; Estimated DNA profil mixture ratios: Victim: 28%, Suspect: 16%, Unknown: 56% / DNAs v2.7.12 MixCal (PowerPlex Fusion 6C DNA profile): POI: Victim (Item 1) -> LR = 3.8E+11; POI: Suspect (Item 2) -> LR = 3.6E+09 / EuroForMix v4.1.0 (PowerPlex Fusion 6C DNA profile): P(dropout lambda) = 0.01; Backward stutter model was applied. POI: Victim (Item 1) -> LR = 1.6E+22; POI: Suspect (Item 2) -> LR = 2.3E+19; Estimated DNA profil mixture ratios: Victim: 28%, Suspect: 16%, Unknown: 56% / EuroForMixRep v1.1.0 (PowerPlex Fusion 6C and Globalfiler DNA profile replicates): EuroForMixRep was used for deconvolution of mixed DNA profiles, too, P(dropout lambda) = 0.01; Backward stutter model was applied. POI: Victim (Item 1) -> LR = 4.1E+26; POI: Suspect (Item 2) -> LR = 5.9E+25 / The LR results of the statistical analyses strongly support the hypothesis that Item 3 (shirt) contains Victim's, Suspect's and an unknown male contributor's DNA. [Participant submitted data in a format that could not be reproduced in this report].</p> <p>Database(s): STRidER R2 Europe: https://strider.online/frequencies / Bodner et al. 2016: https://doi.org/10.1016/j.fsigen.2016.06.008.</p>

TABLE 6

WebCode	Item 3 Methods & Results
MNVQFG	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: All results below are expressed as LogLR. Item 3: - CASESOLVER; Item1+2unkn vs 3 unkn = 1.4E+01; Item2+2unkn vs 3 unkn = 1.4E+01. - LRMIX; Item1+2unkn vs 3 unkn = 1.2E+01 (optimal drop out 0.11); Item2+2unkn vs 3 unkn = 1.1E+01; Item1 + Item2 + 1 unkn vs 3 unkn = 2.4E+01. - LABRETRIEVER; Item1+2unkn vs 3 unkn = (AFR) = 1.2E+01 (optimal drop out 0.11); (CAUC) = 9.6E+00 (optimal drop out 0.11); (HISP) = 1.0E+01 (optimal drop out 0.11). Item2+2unkn vs 3 unkn = (AFR) = 1.2E+01 (standard drop out 0.1); (CAUC) = 1.1E+01 (standard drop out 0.1); (HISP) = 1.1E+01 (standard drop out 0.1). Item1+Item2+1 unkn vs 3 unkn = (AFR) = 2.3E+01 (standard drop out 0.1); (CAUC) = 2.0E+01 (standard drop out 0.1); (HISP) = 2.1E+01 (standard drop out 0.1). - EUROFORMIX; Item1+2unkn vs 3 unkn = 2.4E+01; Item2+2unkn vs 3 unkn = 1.8E+01; Item1 + Item2 + 1 unkn vs 3 unkn = 5.0E+01.</p> <p>Database(s): Nist All Population</p>
NKFJRG	<p>Method(s): [Participant did not report a method.]</p> <p>Stats Analysis: YSTR statistic not calculated for comparison to suspect as his DNA is expected. No YSTR statistic calculated for comparison to unidentified male donor as no additional reference sample data provided.</p> <p>Database(s): [Participant did not report database(s).]</p>
NRPMCL	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: - The mixed DNA profile is greater than 100 billion times more likely to be obtained if 'victim' and two unknown, unrelated individuals have contributed, rather than 3 unknown, unrelated individuals from the Caucasian and Asian populations. - The mixed DNA profile is greater than 100 billion times more likely to be obtained if 'suspect' and two unknown, unrelated individuals have contributed, rather than 3 unknown, unrelated individuals from the Caucasian and Asian populations. - The mixed DNA profile is greater than 100 billion times more likely to be obtained if 'victim' , 'suspect', and an unknown, unrelated individuals have contributed, rather than 3 unknown, unrelated individuals from the Caucasian and Asian populations.</p> <p>Database(s): NIST Caucasian and Asian</p>
NVAZFH	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Conditioning on the suspect's shirt; the LR using the victim's reference sample is 3.41×10^{25} (very strong support for inclusion).</p> <p>Database(s): STRMix</p>
P6TQFF	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: It is 1.2×10^{16} times more likely to observe the DNA profile if the mixed stain on the shirt (ITEM 3) originates from ITEM 2 (Suspect) and two unknown persons, than if it originated from three unknown persons, unrelated to ITEM 2 (Suspect). Theta is 0.01 and probability of drop-in is 0.05. It is 1.3×10^{19} times more likely to observe the DNA profile if the mixed stain on the shirt (ITEM 3) originates from ITEM 1 (Victim) and two unknown persons, than if it originated from three unknown persons, unrelated to ITEM 1 (Victim). Theta is 0.01 and probability of drop-in is 0.05. For all statistical calculations we used module MLE of DNAXs, version 2.6.10.</p> <p>Database(s): [Location Identifying Database]</p>

TABLE 6

WebCode	Item 3 Methods & Results
PDQHNA	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: It is exceedingly more probable, by 4.05627E09 times, to observe the DNA profile if the mixed stain originated from Item 1 and two unknown persons than if it originated from three unknown persons. It is exceedingly more probable, by 2,58977E011 times, to observe the DNA profile if the mixed stain originated from Item 2 and two unknown persons than if it originated from three unknown persons. It is exceedingly more probable, by 4,91044E021 times, to observe the DNA profile if the mixed stain originated from Item 1, Item 2 and one unknown person than if it originated from three unknown persons. The Y-chromosome DNA profile is 4.261E03 times more probable given the proposition that the mixed stain originated from Item 2 and one unknown person than the proposition that it originated from two unknown persons. Y-chromosome DNA profile analyses are group-level studies with low discriminatory power. The Y-chromosome DNA profile is inherited through the paternal line, meaning that biological relatives such as a father, son, grandfather, and brothers will share the same Y-chromosome DNA profile. The calculations were performed using the Yfiler kit and the Y17 dataset. The frequency source used when the profile was not observed in the database was the Discrete Laplace method.</p> <p>Database(s): GlobalFiler calculations were performed using LRmix Studio version 2.1.5 and the STRidER allele frequency database. Yfiler Plus calculations utilized the Y-Chromosome STR Haplotype Reference Database.</p>
PYQJ2C	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The mixed DNA profile is 46 billion (46e9), 270 billion (270e9) and 5.1 trillion (5.1e12) TIMES more likely if they originated from the victim (Item 1), the suspect (Item 2) and one unknown unrelated individual RATHER THAN; if they originated from the suspect (Item 2) and two unknown unrelated individuals as calculated based on the [Location Identifying Database].</p> <p>Database(s): [Location Identifying Database]</p>
R3JMHA	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The mixed DNA profile are 11 billion (11e9), 37 billion (37e9) and 270 trillion (270e9) TIMES more likely; IF they originated from ITEM 1 (victim), ITEM 2 (suspect) and one unknown unrelated individual RATHER THAN; IF they originated from ITEM 2 (suspect) and two unknown unrelated individuals as calculated based on the [Location Identifying Database].</p> <p>Database(s): [Location Identifying Database]</p>
TW86HQ	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: LRmix Studio v.2.1.3. Item 1: LR = 2,47E008 (Drop out probability: 0,12). Item 2: LR = 5,09E010 (Drop out probability: 0,12).</p> <p>Database(s): STRider Asia</p>
TX3EUA	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The victim, the suspect and one unknown person are not excluded as contributors of the mixed cells found in the Item 3. Is 2.6 E+15 times more probable this finding if the mixture comes from the victim, suspect and one unknown person than if the mixture comes from the suspect and two unknown persons from the reference population.</p> <p>Database(s): [Location Identifying Database]</p>
U9FYRB	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: [Participant did not report statistical analysis.]</p> <p>Database(s): NIST1036_Asian</p>
UK9MGJ	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA profile from item 3 is 1 billion times more likely if suspect, victim and two unknown, unrelated individuals are contributing rather than suspect and three unknown, unrelated individuals. The DNA profile provides very strong support for the proposition that the suspect, victim and two unknown unrelated individuals are contributors to this profile as compared to the proposition that suspect and three unknown, unrelated persons are contributors.</p> <p>Database(s): Hill, C.R., Duewer, D.L., Kline, M.C., Coble, M.D., Butler, J.M. (2013) U.S. population data for 29 autosomal STR loci. Forensic Sci. Int. Genet. 7: e82-e83.</p>

TABLE 6

WebCode	Item 3 Methods & Results
UMW3XP	<p>Method(s): [Participant did not report a method.]</p> <p>Stats Analysis: Working from the pdf of the electropherogram, it is not possible to perform a thorough evaluation of each locus. As a result it is possible to miss very minor contributions from additional contributors and be incorrect in the possible number of contributors to complex mixture samples. It is also not possible to thoroughly evaluate spikes, pullup, and baseline irregularities which can affect correct allele determinations. I am a forensic consultant that reviews DNA case files submitted to me as evidence. I review the analyst allele calls and evidence to reference sample comparisons so I can understand how the original analyst arrived at their opinions and conclusions. I accept that their population calculations are correct. N/A: Not Applicable. NSD: No Size Data.</p> <p>Database(s): [Participant did not report database(s).]</p>
UNTC9A	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: 1. INTERPRETATION: The genetic profiles obtained in each sample analyzed are presented in the results table. In the blood stain found on the suspect's shirt, more than two alleles were found in several of the genetic systems analyzed, indicating the presence of cells from more than one individual. The profiles of the victim, the suspect, and an unknown individual are included in the mix. The probability of the discovery was then calculated assuming two hypotheses (H): H1: The mixture comes from the suspect, the victim and an unknown individual. H2: The mixture comes from at least 3 unknown individuals from the reference population not genetically related. It was found that the genetic finding is 141,238,000,000,000,000,000,000,000 times more likely in the first hypothesis than in the second. CONCLUSION: The victim, the suspect and an unknown individual are not excluded as contributors to the mixture of blood found on the suspect's shirt. The discovery is one hundred forty-one quintillion times more likely if the mixture comes from the victim, the suspect and an unknown individual as to come from at least 3 unknown individuals taken at random in the reference population.</p> <p>Database(s): [Location Identifying Database]</p>
W2B2W4	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: 2.643.489.766.856.810</p> <p>Database(s): [Location Identifying Database]</p>
WFRY26	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: A mixed DNA profile at least three contributors was developed from "Item 3". The mixed DNA profile is 46 billion (46e9), 270 billion (270e9) and 5.1 trillion (5.1e12) TIMES more likely if they originated from the victim (Item 1), the suspect (Item 2) and one unknown unrelated individual RATHER THAN; if they originated from the suspect (Item 2) and two unknown unrelated individuals as calculated based on the [Location Identifying Database].</p> <p>Database(s): [Location Identifying Database]</p>
WJQBX6	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The mixed DNA profile is 46 billion (46e9), 270 billion (270e9) and 5.1 trillion (5.1e12) TIMES more likely if they originated from the victim (Item 1), the suspect (Item 2) and one unknown unrelated individual RATHER THAN; if they originated from the suspect (Item 2) and two unknown unrelated individuals as calculated based on the [Location Identifying Database].</p> <p>Database(s): [Location Identifying Database]</p>
XDERXL	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: [Participant did not report statistical analysis.]</p> <p>Database(s): Local Database</p>

TABLE 6

WebCode	Item 3 Methods & Results
XEB3A6	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: This mixed DNA profile is approximately 47.9 million (4.79×10^7) times more likely to be observed if the Female Victim (001-AA), the Male Suspect (001-AB) and an unknown male individual are the contributors than if the Male Suspect (001-AB) and 2 random, unrelated African-Americans are the contributors; approximately 503 thousand (5.03×10^5) times more likely than if the Male Suspect (001-AB) and 2 random, unrelated Caucasians are the contributors; and approximately 118 thousand (1.18×10^5) times more likely than if the Male Suspect (001-AB) and 2 random, unrelated Southwestern Hispanics are the contributors.</p> <p>Database(s): PopStats</p>
XWVT96	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The LR value calculated for this mixture in relation to the alleged victim was 3.12E24 to 1, which means it is about 3.12E24 times more likely that the observed DNA profile being a mixture originating from the alleged victim and two unknown individuals than if it originating from three unrelated individuals selected at random from the [Location Identifying Population]. The LR value calculated for this mixture in relation to the suspect was 4.69E25 to 1, which means it is about 4.69E25 times more likely that the observed DNA profile being a mixture originating from the suspect and two unknown individuals than if it originating from three unrelated individuals selected at random from the [Location Identifying Population].</p> <p>Database(s): [Location Identifying Database]</p>
YUXEVC	<p>Method(s): [Participant did not report a method.]</p> <p>Stats Analysis: Based on our Laboratory Policies, the following parameter was established: The Laboratory does not perform interpretation analysis of DNA Mixtures in Mixtures of 3 contributors for future comparisons. According to the I Part of Analytical Threshold question [Table 1 and 2: STR and YSTR Interpretation Guidelines], we have different parameters (RFU) by Colors in GlobalFiler: Blue: 41 RFU, Green: 76 RFU, Yellow: 30 RFU, Red: 73 RFU, Purple: 43 RFU and Orange: 81 RFU.</p> <p>Database(s): [Participant did not report database(s).]</p>
ZHJB9J	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: LR = $7,11 \times 10^{11}$. ITEM 1 + ITEM 2 + 1 NN / ITEM 2 + 2 NN.</p> <p>Database(s): STRidER_2019-08-02</p>

Statistical Analysis for Item 4

TABLE 7

WebCode	Item 4 Methods & Results
2KQ4H7	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The genetic profile obtained from Item 4 is interpreted as a mixture of DNA from two contributors. Item 1 (victim) cannot be excluded as a possible contributor to this mixture. Given this genetic profile, assuming two contributors, and assuming the presence of the suspect's profile, it is 147 sextillion times more likely to observe this genetic profile if Item 2 (suspect) and Item 1 (victim) are contributors than if Item 2 (suspect) and one unknown individual are the contributors.</p> <p>Database(s): NIST</p>
376NE7	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA result obtained from Item 4 is consistent with a mixture from at least two (2) contributors, including at least one (1) male. The mixture is approximately 8.09×10^{25} times more likely to occur (very strong support for inclusion) if the victim and the suspect are contributors, rather than if the suspect and an unknown, unrelated individual are contributors.</p> <p>Database(s): NIST 1036_Asian population</p>
3R3HZ2	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: LR-1 7,65301E015, dropout 0,1. LR-2 6,00384E017, dropout 0,1.</p> <p>Database(s): [Location Identifying Database]</p>
686YYY	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: [Participant did not report statistical analysis.]</p> <p>Database(s): NIST (2017r.) Population of Asia (sample size=97)</p>
6AWWDW	<p>Method(s): Combined Probability of Exclusion/Inclusion</p> <p>Stats Analysis: INCLUDED: Female Victim, Male Suspect. The estimated frequency of a random, unrelated individual being included as a possible contributor to the profile is rarer than 1 in 330 billion.</p> <p>Database(s): STR population frequency statistics calculated in Popstats using Expanded FBI STR 2015 Caucasian and African American populations as well as [Location Identifying Populations]. Only the most common frequency among the five populations or 1 in 330 billion is reported, whichever is more common.</p>
6VWYPZ	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The mixed DNA profile are 34 sextillion ($34e21$), 270 sextillion ($270e21$) and 8.3 septillion ($8.3e24$) TIMES more likely; IF they originated from the sources represented by Item 1 and Item 2 RATHER THAN; IF they originated from the source represented by Item 2 and one unknown unrelated individual as calculated based on the [Location Identifying Database].</p> <p>Database(s): [Location Identifying Database]</p>
78JQAD	<p>Method(s): [Participant did not report a method.]</p> <p>Stats Analysis: No stats calculated.</p> <p>Database(s): [Participant did not report database(s).]</p>
8KN3JZ	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA result obtained from the pants (Item 4) allegedly taken from the suspect is consistent with a mixture from at least two (2) contributors, including at least one (1) male. The mixture is approximately 7.04×10^{23} times more likely to occur (very strong support for inclusion) if the suspect and the victim are contributors, rather than if the suspect and an unknown, unrelated individual are contributors.</p> <p>Database(s): NIST1036_ASIAN</p>

TABLE 7

WebCode	Item 4 Methods & Results
A96A34	<p>Method(s): Random Match Probability</p> <p>Stats Analysis: Item 1 RMP [Location Identifying Population] = 1.94749×10^{31}. Item 1 RMP [Location Identifying Population] = 9.16239×10^{28}. Item 2 RMP [Location Identifying Population] = 2.16321×10^{32}. Item 2 RMP [Location Identifying Population] = 2.50829×10^{31}.</p> <p>Database(s): [Participant did not report database(s).]</p>
AJ7TJY	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA result obtained from ITEM4 is consistent with a mixture from at least two (2) contributors, including at least one (1) male. The mixture is approximately 3.07×10^{30} times more likely to occur (very strong support for inclusion) if the suspect and the victim are contributors, rather than if the suspect and one (1) unknown, unrelated individual are contributors.</p> <p>Database(s): STRmix</p>
AUND4V	<p>Method(s): See Below</p> <p>Stats Analysis: Item #1 (victim) and Item #2 (Suspect) are included as contributors to the Globalfiler and Fusion6C DNA profiles from item #4. Item #2 (suspect or a member of the same paternal lineage) is consistent with being the source of the Yfiler and PPY23 YSTR DNA profiles from item #4. Probabilistic Genotyping is outsourced and performed upon request.</p> <p>Database(s): Probabilistic Genotyping is outsourced and performed upon request.</p>
B3CTR9	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: A mixed DNA profile (PowerPlex™ Fusion 5C) consisting of DNA from at least two contributors was obtained from the suspect's pants (item CTS-24-5882-4). The DNA profile of CTS-24-5882-4 is consistent with the DNA profile of CTS-24-5881-1. Therefore, the individual represented by the reference sample, item CTS-24-5882-1 (victim), cannot be excluded as a contributor of the DNA profile obtained from the suspect's pants (item CTS-24-5882-4). The DNA profile of CTS-24-5882-4 is consistent with the DNA profile of CTS-24-5882-2. Therefore, the individual represented by the reference sample, item CTS-24-5882-2 (suspect), cannot be excluded as a contributor of the DNA profile obtained from the suspect's pants (item CTS-24-5882-4). The observed mixture profile is approximately 3.12×10^{24} times more likely to occur under the scenario that the DNA profile obtained from the suspect's pants, item CTS-24-5882-4, is a mixture of DNA from the victim and suspect, as opposed to the scenario that it originated from a mixture of DNA from the victim and an unrelated, unknown individual in the Caucasian [Location Identifying Population]. A single source DNA profile (PowerPlex Y23) was obtained from the suspect's pants (item CTS-24-5882-4). The individual represented by the reference sample, item CTS-24-5882-2 (suspect), cannot be excluded as a contributor of the DNA profile obtained from the suspect's pants (item CTS-24-5882-4). The selected haplotype is found 0 times out of 3,149 haplotypes in the [Country] for the Asian [Location Identifying Population]. Applying the 95% upper confidence interval results in 1 in 1,052 in the [Country] for the Asian [Location Identifying Population].</p> <p>Database(s): Lab Retriever, YHRD</p>
B4943R	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The evidence is 6.6 septillion times more likely if the Female victim (Item 1) is a contributor to the DNA mixture than if she is not a contributor. The evidence is 190 septillion times more likely if the Male victim (Item 2) is a contributor to the DNA mixture than if he is not a contributor.</p> <p>Database(s): FBI Extended.</p>
B8CYMV	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA result obtained from stain on suspect's pants (Item 4) is consistent with a mixture from at least two (2) contributors, including at least one (1) male. The mixture is approximately 9.83×10^{25} times more likely to occur (very strong support for inclusion) if the suspect (Item 2) and the victim (Item 1) are contributors, rather than if the suspect (Item 2) and one (1) unknown, unrelated individual are contributors.</p> <p>Database(s): [Participant did not report database(s).]</p>

TABLE 7

WebCode	Item 4 Methods & Results
D7P8NV	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA result obtained from the suspect's pants [Item 4] is consistent with a mixture from at least two (2) contributors, including at least one (1) male. The mixture is approximately 8.11E25 times more likely to occur (very strong support for inclusion) if the suspect and the victim are contributors, rather than if the suspect and an unknown, unrelated individual are contributors. Further analysis, using Y-STRs, of the suspect's pants [Item 4] produced a Y-STR profile which matched that obtained from the suspect's blood sample [Item 2]. Therefore, the suspect cannot be excluded as being the source of this Y-STR profile. In addition, all patrilineal related males and an unknown number of unrelated males cannot be excluded as being the source of this Y-STR profile.</p> <p>Database(s): NIST 1036 U.S. Population Dataset – Asian</p>
DMDLLZ	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Under the assumption that the VICTIM (Item 1) and one unrelated person selected at random from the general population are contributors to this mixture, the likelihood of observing the mixed source profile from the STAIN ON SUSPECT'S PANTS (Item 4) is $\geq 1,000,000$ times greater (actual LR available upon request) than if it is assumed that two unrelated persons selected at random from the general population are the contributors to this mixed-source sample. Under the assumption that the SUSPECT (Item 2) and one unrelated person selected at random from the general population are contributors to this mixture, the likelihood of observing the mixed source profile from the STAIN ON SUSPECT'S PANTS (Item 4) is $\geq 1,000,000$ times greater (actual LR available upon request) than if it is assumed that two unrelated persons selected at random from the general population are the contributors to this mixed-source sample. The SUSPECT (Item 2), his paternally-related male relatives, and an unknown number of males in the general population cannot be excluded as the potential source of the YSTR haplotype developed from the STAIN ON SUSPECT'S PANTS (Item 4). Given a theta-value of 6.0×10^{-5} and a 95% UCI of the combined Haplotype frequency of 1 in 4,077 (2 matches in 25,666 Haplotypes in [Location Identifying Population]), the corrected Match Probability is estimated to be approximately 1 in 3,276.</p> <p>Database(s): Revised-NIST-1036-Allele Frequencies, YHRD database (Release 69)</p>
DQDXGY	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: $LR = 1.6258 \times 10^{32}$; Assuming a two-person mixture, the DNA results provide very strong support for the conditions specified under H1.</p> <p>Database(s): Allele frequencies were obtained from NIST 1036 Revised US Population Database (July 2017) All2017 at https://strbase.nist.gov/NISTpop.htm.</p>
ENPG8R	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The obtained DNA result is approximately $2,5619 \times 10^{19}$ times more likely to occur if originated from Suspect and Victim than from Suspect and 1 unknown individual in [Location Identifying Population]. Suspect + Victim / Suspect + 1 Unknown</p> <p>Database(s): STRidER</p>
EQ72RL	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The mixed DNA profile are 34 sextillion ($34e^{21}$), 270 sextillion ($270e^{21}$) and 8.3 septillion ($8.3e^{24}$) TIMES more likely, if they originated from the sources represented by Item1 and Item2 RATHER THAN, if they originated from ITEM 2 and one unknown unrelated individuals as calculated based on [Location Identifying Database].</p> <p>Database(s): [Location Identifying Database]</p>
F3JKPM	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: $LR=5,75E20$. Dropout=0,28.</p> <p>Database(s): Steffen, C.R., Coble, M.D., Gettings, K.B., Vallone, P.M. (2017) Corrigendum to 'U.S. Population Data for 29 Autosomal STR Loci' [Forensic Sci. Int. Genet. 7 (2013) e82-e83]. Forensic Sci. Int. Genet. 31, e36–e40</p>

TABLE 7

WebCode	Item 4 Methods & Results
GT9J4M	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA profile is greater than 100 billion times more likely if it originates from item 1 and item 2 than if it originates from item 2 and an unknown individual from the [Location Identifying Population].</p> <p>Database(s): [Location Identifying Database]</p>
JWL3ZL	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Statistical analysis was done using LR MIX Studio probability value obtained was 1.9293E15</p> <p>Database(s): [Location Identifying Database]</p>
K6BDNM	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The mixture is approximately 78,600,000,000,000,000,000,000 times more likely to occur if the suspect and the victim are contributors, rather than if the suspect and an unknown, unrelated individual are contributors.</p> <p>Database(s): NIST1036 Asian</p>
KW2NAN	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA result obtained from Item 4 is consistent with a mixture from at least two (2) contributors, including at least one (1) male. The mixture is approximately 7.87×10^{25} times more likely to occur (very strong support for inclusion) if the suspect and the victim are contributors, rather than if the suspect and an unknown, unrelated individual are contributors.</p> <p>Database(s): NIST1036_ASIAN FBI_EXTENDED_AFAMBAHJAM</p>
LURVVF	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Stutter filter was applied on DNA profiling. Item 4 (pants) indicates the presence of a mixture. The number of alleles indicates that the mixture may be a two person mixture. Item 4 (pants) could have originated from Victim (Item 1) and Suspect (Item 2). / Common parameters used for statistical analyses: P(dropin) = 0.03; Pmin = 0.001; FST = 0.015 / Hp hypothesis: POI + 1 unrelated unknown contributor / Hd hypothesis: 2 unrelated unknown contributors / LRmixStudio v2.1.5 (PowerPlex Fusion 6C and Globalfiler DNA profile replicates): P(dropout) = 0.1; POI: Victim (Item 1) -> LR = 3.1E+18; POI: Suspect (Item 2) -> LR = 1.4E+18 / DNAXs v2.7.12 MLE (PowerPlex Fusion 6C DNA profile): P(dropout lambda) = 0.01; Backward stutter model was applied. POI: Victim (Item 1) -> LR = 1.5E+30; POI: Suspect (Item 2) -> LR = 6.8E+30; Estimated DNA profil mixture ratios: Victim: 65%, Suspect: 35%, / DNAXs v2.7.12 MixCal (PowerPlex Fusion 6C DNA profile): POI: Victim (Item 1) -> LR = 2.5E+18; POI: Suspect (Item 2) -> LR = 8.5E+17 / EuroForMix v4.1.0 (PowerPlex Fusion 6C DNA profile): P(dropout lambda) = 0.01; Backward stutter model was applied. POI: Victim (Item 1) -> LR = 1.5E+30; POI: Suspect (Item 2) -> LR = 5.4E+30; Estimated DNA profil mixture ratios: Victim: 65%, Suspect: 35% / EuroForMixRep v1.1.0 (PowerPlex Fusion 6C and Globalfiler DNA profile replicates): P(dropout lambda) = 0.01; Backward stutter model was applied. POI: Victim (Item 1) -> LR = 4.0E+30; POI: Suspect (Item 2) -> LR = 1.9E+31 / The LR results of the statistical analyses strongly support the hypothesis that Item 4 (pants) contains Victim's and Suspect's DNA. [Participant submitted data in a format that could not be reproduced in this report].</p> <p>Database(s): STRidER R2 Europe: https://strider.online/frequencies / Bodner et al. 2016: https://doi.org/10.1016/j.fsigen.2016.06.008.</p>

TABLE 7

WebCode	Item 4 Methods & Results
MNVQFG	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: All results below are expressed as LogLR. Item 4: - CASESOLVER: Item1+1 unkn vs 2 unkn = 2.1E+01; Item2+1 unkn vs 2 unkn = 2.2E+01. - LRMIX: Item1+1 unkn vs 2 unkn = 1.8E+01 (optimal drop out 0.17); Item2+1 unkn vs 2 unkn = 1.8+01 (optimal drop out 0.15); Item1 + Item2 vs 2 unkn = 4.4E+01 (optimal drop out 0.15). - LABRETRIEVER: Item1+1 unkn vs 2 unkn = (AFR) = 1.8E+01 (optimal drop out 0.17); (CAUC) = 1.6E+01 (optimal drop out 0.17); (HISP) = 1.7E+01 (optimal drop out 0.17). Item2+1 unkn vs 2 unkn = (AFR) = 1.8E+01 (optimal drop out 0.15); (CAUC) = 1.7E+01 (optimal drop out 0.15); (HISP) = 1.7E+01 (optimal drop out 0.15). Item1+Item2 vs 2 unkn = (AFR) = 4.1E+01 (standard drop out 0.15); (CAUC) = 3.8E+01 (standard drop out 0.15); (HISP) = 3.9E+01 (standard drop out 0.15). - EUROFORMIX: Item1+1 unkn vs 2 unkn = 3.1E+01; Item2+1 unkn vs 2 unkn = 3.1E+01; Item1 + Item2 vs 2 unkn = 6.3E+01.</p> <p>Database(s): NIST All Population</p>
NKFJRG	<p>Method(s): [Participant did not report a method.]</p> <p>Stats Analysis: YSTR statistic not calculated for comparison to suspect as his DNA is expected.</p> <p>Database(s): [Participant did not report database(s).]</p>
NRPML	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: - The mixed DNA profile is greater than 100 billion times more likely to be obtained if 'victim' and an unknown, unrelated individual have contributed, rather than 3 unknown, unrelated individuals from the Caucasian and Asian populations. - The mixed DNA profile is greater than 100 billion times more likely to be obtained if 'suspect' and an unknown, unrelated individual have contributed, rather than 3 unknown, unrelated individuals from the Caucasian and Asian populations. - The mixed DNA profile is greater than 100 billion times more likely to be obtained if 'victim' and 'suspect' have contributed, rather than 2 unknown, unrelated individuals from the Caucasian and Asian populations.</p> <p>Database(s): NIST Caucasian and Asian</p>
NVAZFH	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Conditioning on the suspect's pants; the LR using the victim's reference sample is 7.47×10^{25} (very strong support for inclusion).</p> <p>Database(s): STRMix</p>
P6TQFF	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: It is 4,5e28 times more likely to observe the DNA profile if the mixed stain on the pants (ITEM 4) originates from ITEM 2 (Suspect) and one unknown person, than if it originated from two unknown persons, unrelated to ITEM 2 (Suspect). Theta is 0.01 and probability of drop-in is 0.05. It is 1,4e26 times more likely to observe the DNA profile if the mixed stain on the pants (ITEM 4) originates from ITEM 1 (Victim) and one unknown person, than if it originated from two unknown persons, unrelated to ITEM 1 (Victim). Theta is 0.01 and probability of drop-in is 0.05. For all statistical calculations we used module MLE of DNAs, version 2.6.10.</p> <p>Database(s): [Location Identifying Database]</p>

TABLE 7

WebCode	Item 4 Methods & Results
PDQHNA	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: It is exceedingly more probable, by 2,02212E015 times, to observe the DNA profile if the mixed stain originated from Item 1 and one unknown person than of it originated from two unknown persons. It is exceedingly more probable, by 1,62587E017 times, to observe the DNA profile if the mixed stain originated from Item 2 and one unknown person than of it originated from two unknown persons. It is exceedingly more probable, by 3,76771E038 times, to observe the DNA profile if the mixed stain originated from Item 1 and Item 2 than of it originated from two unknown persons. A full Y-chromosome DNA profile consistent with Item 2 was identified in the stain. During the analysis, no identical Y-chromosome DNA profile matching Item 2 was found among 106 444 Y-chromosome profiles in the global population database, nor among 17 869 Y-chromosome profiles in the Eurasian metapopulation database, nor among 70 120 Y-chromosome profiles in the East Asian metapopulation database. The Y-chromosome DNA profile is inherited through the paternal line, meaning that biological relatives such as a father, son, grandfather, and brothers will share the same Y-chromosome DNA profile. The calculations were performed using the Yfiler Plus kit and the Y27 dataset.</p> <p>Database(s): GlobalFiler calculations were performed using LRmix Studio version 2.1.5 and the STRidER allele frequency database. Yfiler Plus calculations utilized the Y-Chromosome STR Haplotype Reference Database.</p>
PYQJ2C	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The mixed DNA profile is 34 sextillion (34e21), 270 sextillion (270e21) and 8.9 septillion (8.9e24) TIMES more likely if they originated from the victim (Item 1) and the suspect (Item 2) RATHER THAN; if they originated from the suspect (Item 2) and one unknown unrelated individual as calculated based on the [Location Identifying Database].</p> <p>Database(s): [Location Identifying Database]</p>
R3JMHA	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The mixed DNA profile are 8.9 sextillion (8.9e21), 29 sextillion (29e21) and 270 sextillion (270e21) TIMES more likely; IF they originated from ITEM 1 (victim) and ITEM 2 (suspect) RATHER THAN; IF they originated from ITEM 2 (suspect) and one unknown unrelated person as calculated based on the [Location Identifying Database].</p> <p>Database(s): [Location Identifying Database]</p>
TW86HQ	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: LRmix Studio v.2.1.3. Item 1: LR = 8,59E013 (Drop out probability: 0,17). Item 2: LR = 1,76E016 (Drop out probability: 0,17).</p> <p>Database(s): STRidER Asia</p>
TX3EUA	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The victim and the suspect are not excluded as contributors of the mixed cells found in the Item 4. Is 1.62 E+29 times more probable this finding if the mixture comes from the victim and the suspect than if the mixture comes from the suspect and one unknown person from the reference population.</p> <p>Database(s): [Location Identifying Database]</p>
U9FYRB	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: [Participant did not report statistical analysis.]</p> <p>Database(s): NIST1036_Asian</p>
UK9MGJ	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA profile is 1 billion times more likely if suspect and victim are contributing than if suspect and an unknown, unrelated individual are contributing. The DNA profile provides very strong support for the proposition that suspect and victim are contributing to the DNA profile from item 4 as compared to the proposition that suspect and an unknown, unrelated person are contributing.</p> <p>Database(s): Hill, C.R., Duewer, D.L., Kline, M.C., Coble, M.D., Butler, J.M. (2013) U.S. population data for 29 autosomal STR loci. Forensic Sci. Int. Genet. 7: e82-e83.</p>

TABLE 7

WebCode	Item 4 Methods & Results
XEB3A6	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: This mixed DNA profile is approximately 7.91 octillion (7.91×10^{27}) times more likely to be observed if the Female Victim (001-AA) and the Male Suspect (001-AB) are the contributors than if the Male Suspect (001-AB) and a random, unrelated African-American are the contributors; approximately 2.73 septillion (2.73×10^{24}) times more likely than if the Male Suspect (001-AB) and a random, unrelated Caucasian are the contributors; and approximately 2.62 septillion (2.62×10^{24}) more likely than if the Male Suspect (001-AB) and a random, unrelated Southwestern Hispanic are the contributors.</p> <p>Database(s): PopStats</p>
XWVT96	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The LR value calculated for this mixture in relation to the alleged victim was 1.69E21 to 1, which means it is about 1.69E21 times more likely that the observed DNA profile being a mixture originating from the alleged victim and one unknown individual than if it originating from two unrelated individuals selected at random from the [Location Identifying Population]. The LR value calculated for this mixture in relation to the suspect was 8.30E22 to 1, which means it is about 8.30E22 times more likely that the observed DNA profile being a mixture originating from the suspect and one unknown individual than if it originating from two unrelated individuals selected at random from the [Location Identifying Population].</p> <p>Database(s): [Location Identifying Database]</p>
YUXEVC	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: [Participant did not report statistical analysis.]</p> <p>Database(s): [Location Identifying Database]</p>
ZHJB9J	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: LR = $2,92 \times 10^{24}$. ITEM 1 + ITEM 2 / ITEM 2 + 1 NN.</p> <p>Database(s): STRidER_2019-08-02</p>

Additional Comments

TABLE 8

WebCode	Additional Comments
686YYY	Item 3: LR=9,1E8; H1: suspect+victim+one unknown person; H0: suspect+two unknown persons. Item 4: LR=9,3E18; H1: suspect+victim; H0: suspect+one unknown person.
6AWWDW	Items 3 and 4 each had the same struck allele: 32 at D21S11. In each case, when forward and reverse stutter were subtracted, the total RFU was below zero.
6VWYPZ	Statistical Evaluation: The statistical evaluations were performed on the DNA.View Statistical Software version 37.42. Remark: 'NM' denotes non-male profile.
8KN3JZ	For Item 4, STRMix analysis was carried out both including and ignoring the D2S441 locus, as a missing stutter peak was detected: allele 10.3. The missing stutter peak was visible on electropherogram however, the peak could not be detected or selected by Genemapper. The LR calculated while ignoring the locus was reported as the most conservative LR value. the LR obtained while including the D2S441 locus was 9.87×10^{25} also providing very strong support for inclusion of the victim in the mixture rather than exclusion, if the suspect is considered an assumed contributor under both hypotheses. Under current laboratory procedures Y-STR analysis would not be carried out for this case as it is non-sexual in nature.
A96A34	possible stutter at D21S11 loci seen on both Item 3 & item 4.
AUND4V	Variations in allele calls may be due to the use of a more sensitive analysis program (GeneMarker vs GeneMapper IDX) and different stutter thresholds.
B4943R	We use FaSTR software instead of Genemapper ID-X, with Globalfiler. For the questioned samples, with the exception of the 12second ladder and the Amp Positive sample, which worked fine as did the Knowns this cycle and all of last Spring 2024 CTS .hid files, the remaining samples for Q needed an adjustment to the naming of certain dye channels within FaSTR profiling kit setting to account for the LIZ / SID naming discrepancies of the submitted raw data files. With ESR, this was sorted out. This was not an issue last CTS cycle for me or with the knowns on this cycle. Thank you.
D7P8NV	A non-probative match was observed with the Y-STR profiles obtained from suspect's pants [Item 4] and suspect's blood sample [Item 2]. Consequently, Y-STR statistics were not generated from the Y Chromosome Haplotype Reference Database for this non-probative Y-STR profile match.
DQDXGY	H1: The mixture DNA profile is consistent with a mixture of Item 1 (Victim) and Item 2 (Suspect). H2: The mixture DNA profile is consistent with a mixture of Item 2 (Suspect) and an unknown, unrelated individual.
EQ72RL	The statistical evaluation were performed on the DNA view Statistical Software version 37.56. NM : Non-male profile.
NKFJRG	Item 3 indicates the presence of at least three donors. The 16 allele at D1S1656 and 32 allele at D21S11 may be n+4/n-4 stutter. At least one unidentified donor, at least one of which is male, is present in this mixture. Item 4 indicates the presence of at least two donors. The 32 allele at D21S11 may be n+4/n-4 stutter. The 15 allele at D16S539 indicates the presence of at least one unidentified donor in this mixture.
NRPMCL	This case would not warrant the use of Y STR testing; as the victim is female and the clothing is known to be from the male suspect. I have inspected the Y STR profiles to ensure they concur with the results obtained from the autosomal testing, but only because they were supplied. I would not have tested, nor reported them in casework.
PYQJ2C	1. LR calculations were carried out using DNAView Software. 2. NM represents non-male profile.
R3JMHA	* NM represent non-male profile.
UK9MGJ	The language on these proficiencies needs to be updated to be consistent with the Bayesian LR. Use of inclusion is improper in that context. It implies a decision and we don't make decisions in Bayes. There is only support for one proposition or another. The forms should be updated to reflect that if someone lists

TABLE 8

WebCode	Additional Comments
	a PG program that they used on the evidence items, the opinions reflect the following; The DNA profile is ___ times more likely if suspect is contributing than if a random, unrelated person is contributing. The DNA profile is ___ times more likely if victim is contributing than if a random, unrelated person is contributing. There is only support for the inclusionary proposition or the exclusionary proposition under Bayes and no matter the magnitude of the LR, the alternative proposition is never ruled out.
WFRY26	The statistical calculation was carried out using DNAView Statistical Software version 37.63.
WJQB6	Statistical calculation was carried out using DNAview software version 37.56 and calculated at 21 loci.
XDERXL	During PCR validation process, we have established the threshold for each of the five colors in the Investigator 24plex kit as follows: Blue: 62 RFU; Green: 81 RFU; Yellow: 135 RFU; Red: 97 RFU; Purple: 116 RFU.
XEB3A6	Item 3 - D21S11, SE33, D2S1338, FGA, D16S539, CSF1PO, D7S820- Profile is a mixture with peaks below stochastic threshold at these loci. These loci not used for comparisons or statistics.
XWVT96	[From Table 1: STR Thresholds: Analytical Threshold: 125-345; Peak Height Ratio (%): 61.1-81.3; Stochastic Threshold: 430-820.]
ZHJB9J	Item 3: 2 man (NN + Item 2) and 1 women (Item 1). The suspect (Item 2) does not dominate in the Y profile.

-End of Report-
(Appendix may follow)

Test No. 24-5882: DNA Interpretation

DATA MUST BE SUBMITTED BY **Dec. 02, 2024, 11:59 p.m. EST** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A

WebCode: AEEL2Q

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

Scenario:

Police are investigating an assault involving a female victim and male suspect. The victim reports to police that the suspect attacked her on her walk home from work. The suspect was apprehended that same day. A reddish-brown stain was identified on the suspect's shirt and was confirmed as blood by the Serology Unit (Item 3). A reddish-brown stain was identified on the suspect's pants and was confirmed as blood by the Serology Unit (Item 4). Both Items have been submitted for DNA analysis.

HID and PDF file formats are provided for use in this test, choose any or all formats for evaluation.

Items Submitted (Sample Pack INT2):

Item 1: DNA profile from reference sample (Female Victim - Asian)

Item 2: DNA profile from reference sample (Male Suspect - Asian)

Item 3: DNA profile from stain on suspect's shirt

Item 4: DNA profile from stain on suspect's pants

To verify a complete and accurate download, the hash value for the downloaded .ZIP file is as follows:

24-5882 Data For Participants.zip MD5 hash value: 844aedac729e786e9f254a122c2223db

24-5882 Data For Participants.zip SHA1 hash value: 83f86ca5ca7d6a1911b5e3cd19b54a9d031f6d57

Part I: DNA ANALYSIS INSTRUCTIONS

- Use your laboratory's Interpretation guidelines for evaluation of this test.
- Only numerical values can be entered into the fields below. If other values are needed, add this information to the Additional Comments section.
- Please report Laboratory Specific Interpretation Guidelines below per amplification kit.
- If interpretation guidelines are not reported, the consensus information will be utilized in the review of results.

STR Analysis Thresholds

Analytical Threshold (RFU):

Peak Height Ratio (%):

Stochastic Threshold (RFU) (Peak Amplitude):

YSTR Analysis Thresholds

Analytical Threshold (RFU):

Peak Height Ratio (%):

Stochastic Threshold (RFU) (Peak Amplitude):

If you do not have Interpretation guidelines, please use the following guidelines and report these values above:

For STR Analysis: Analytical Threshold: 75 rfu, Peak Height Ratio: 60%, Stochastic Threshold (Peak Amplitude): 100 rfu

For YSTR Analysis: Analytical Threshold: 75 rfu, Peak Height Ratio: 50%, Stochastic Threshold (Peak Amplitude): 75 rfu

- Report the allelic results for each Item in the appropriate response boxes.
- If major and minor contributor(s) can be distinguished and your laboratory normally reports this distinction, report the results of the major profile and the minor profile in the appropriately labeled boxes; otherwise, list the alleles in numerical order in the remaining row of boxes labeled with the Item number.
- Please Note: Samples were completely consumed during extraction.

Part I: DNA ANALYSIS

STR & Amelogenin Results for Known Item 1

- Report alleles in numerical order, separated by a comma.
- Follow your laboratory procedures for reporting homozygotes (i.e. X,X or X) and null responses.

STR Amplification Kit Used For Item 1:

GlobalFiler™
 HID format

Investigator® 24plex
 PDF format

Please indicate the electropherogram(s) reviewed for this test.

PowerPlex® Fusion 5C

PowerPlex® Fusion 6C

Report the Probabilistic Genotyping Software Used (if applicable):

Alleles below are sorted in Default order.

ITEM	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
1						
ITEM	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
1						
ITEM	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
1						
ITEM	Penta D	Penta E	SE33	TH01	TPOX	vWA
1						
ITEM	DYS391	DYS570	DYS576	Y Indel		
1						

Part I: DNA ANALYSIS (continued)

Item 3 DNA Analysis Questions

1) Record the number of contributors found in the Item 3 DNA profile:

2) Choose the conclusion statement that best describes the results of the analysis for Item 3 based on comparisons with the Known Items (If the wording below differs from the normal wording of your conclusions, adapt these conclusions as best you can and use your preferred wording in the Additional Comments section.):

Item 1 Conclusion

- Item 1 (victim) is included (cannot be excluded) as a possible contributor to the DNA obtained from Item 3.
- Item 1 (victim) is excluded as a possible contributor to the DNA obtained from Item 3.
- The DNA typing results for Item 3 in comparison with Item 1 are inconclusive/uninterpretable.

Item 2 Conclusion

- Item 2 (suspect) is included (cannot be excluded) as a possible contributor to the DNA obtained from Item 3.
- Item 2 (suspect) is excluded as a possible contributor to the DNA obtained from Item 3.
- The DNA typing results for Item 3 in comparison with Item 2 are inconclusive/uninterpretable.

3) Statistical Analysis of Item 3 DNA Typing Results:

Select the statistical method(s) used by marking the associated box and report these results in the space below:

Combined Probability of Exclusion/Inclusions (CPE/CPI)

Likelihood Ratio (LR)

Random Match Probability (RMP)

Other:

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

4) Please list any databases used in the statistical analyses of Item 3 below.

Part I: DNA ANALYSIS (continued)

Item 4 DNA Analysis Questions

1) Record the number of contributors found in the Item 4 DNA profile:

2) Choose the conclusion statement that best describes the results of the analysis for Item 4 based on comparisons with the Known Items (If the wording below differs from the normal wording of your conclusions, adapt these conclusions as best you can and use your preferred wording in the Additional Comments section.):

Item 1 Conclusion

- Item 1 (victim) is included (cannot be excluded) as a possible contributor to the DNA obtained from Item 4.
- Item 1 (victim) is excluded as a possible contributor to the DNA obtained from Item 4.
- The DNA typing results for Item 4 in comparison with Item 1 are inconclusive/uninterpretable.

Item 2 Conclusion

- Item 2 (suspect) is included (cannot be excluded) as a possible contributor to the DNA obtained from Item 4.
- Item 2 (suspect) is excluded as a possible contributor to the DNA obtained from Item 4.
- The DNA typing results for Item 4 in comparison with Item 2 are inconclusive/uninterpretable.

3) Statistical Analysis of Item 4 DNA Typing Results:

Select the statistical method(s) used by marking the associated box and report these results in the space below:

Combined Probability of Exclusion/Inclusions (CPE/CPI)

Likelihood Ratio (LR)

Random Match Probability (RMP)

Other:

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

4) Please list any databases used in the statistical analyses of Item 4 below.

Part II: ADDITIONAL COMMENTS

Comments regarding any part of this Test.

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

Part III: AMPLIFICATION KIT SURVEY (optional)

To accommodate your laboratory's future needs, please list all PCR amplification kits (Autosomal and YSTR) utilized as well as any future kits to be implemented in your laboratory.

RELEASE OF DATA TO ACCREDITATION BODIES

The Accreditation Release is accessed by pressing the "Continue to Final Submission" button online and can be completed at any time prior to submission to CTS.

CTS submits external proficiency test data directly to ANAB and/or A2LA. Please select one of the following statements to ensure your data is handled appropriately.

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

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

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

ANAB Certificate No.

A2LA Certificate No.

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

Authorized Contact Person and Title

Laboratory Name

Location (City/State)