



DNA Parentage Test No. 18-5872 Summary Report

Each participant received a sample pack consisting of the standard paternity trio, collected from a mother, a daughter, and a potential father. Participants were requested to analyze the samples using their existing protocols. Data were returned from 64 participants and are compiled into the following tables:

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

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

Manufacturer's Information

Each sample set was a collection of known blood samples, provided on FTA Micro cards, from three individuals (Items 1-3); a mother, a daughter, and a potential father. Participants were requested to analyze these items using their existing protocols. Also included in the data sheet was a kinship exercise that consisted of autosomal DNA profiles of two individuals for comparison. Participants were requested to determine if a half sibling relationship claim was supported following the review of these profiles.

SAMPLE PREPARATION: All stains were prepared from human whole blood which was drawn into EDTA tubes. Item 1 (75 μ l) was blood from a female (mother) donor, Item 2 (75 μ l) was blood from a female (daughter) donor, and Item 3 (75 μ l) was blood from a male donor who was not the biological father of the Item 2 female. The different items were prepared at separate times and were packaged once they were thoroughly dried. Completed sample sets were stored at -20°C until shipment on August 21, 2018.

SAMPLE SET ASSEMBLY: For each sample set, all three Items (1-3) in their separate envelopes were placed in a pre-labeled sample pack envelope and sealed. The sample pack envelopes were then packaged in pre-labeled Heat Seal envelopes and sealed. This process was repeated until all of the sample sets were prepared.

KINSHIP EXERCISE: This exercise included allelic results representing a half sibling relationship.

VERIFICATION: Laboratories that conducted predistribution analysis of the samples reported consistent results and associations.

Amelogenin and STR Results

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

Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	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	15,16	17,24	11,14	15,17	12,12	*
	8,10	10,14	13,16	19,21	11,11	11,12
	12,12	13,15	30,30.2	11,16	X,X	12,12
	23,23	9,13	7,11	24.2,26.2	6,9.3	8,9
	18,19	NM	NM	NM	NM	
2	15,17.3	20,24	11,11	17,18	12,12	*
	10,11	10,10	13,13	21,24	11,13	12,12
	12,17	13,13	28,30.2	11,16	X,X	12,12
	23,24	9,9	7,7	18,26.2	9,9.3	8,10
	17,19	NM	NM	NM	NM	
3	13,16	17,18	11,12	14,16	8,12	*
	8,10	13,15	11,13	18,20	12,12	10,12
	15,17	13,13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12,12	15,19	6,6	8,9
	16,16	11	*	*	2	

YSTR Results

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

Item	DYF387S1	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	Y GATA H4
3	*	14	11,15	13	29	24	11	13	13
	15	12	12	19	*	16	17	*	23
	*	12	*	17	19	*	23	*	12

Paternity Indices

Median Paternity Index results compiled from predistribution laboratories and a consensus of at least 10 participants.

Item - Database	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	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	
3PI	0	0	1.3789	0	1.3572	*
	0	0	2.1377	0	0	2.4426
NIST-STRBase	3.2895	4.0717	0	1.4872	N/A	1.6931
	3.7594	*	*	*	0	0
	0	N/A	N/A	N/A	N/A	

* Results were not received from a minimum of 10 participants for the loci indicated.

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

Summary Comments

The 18-5872 DNA Parentage test was designed to allow participants to assess their proficiency in the analysis and interpretation of a standard paternity trio of blood samples. Item 1 was blood collected from a female donor (mother), Item 2 was blood collected from a female donor (daughter of the Item 1 female), and Item 3 was blood collected from a male donor who is not the biological father of the Item 2 female. Participants were requested to analyze the samples and provide allelic and statistical results as well as relationship conclusions. The test also included a paper kinship exercise where participants were requested to evaluate the provided DNA profiles and report the kinship index and relationship conclusions (Refer to the Manufacturer's Information for preparation details).

DNA Analysis:

All 64 participants who returned data reported STR results for all three items. The individual profiles for Items 2 and 3 were concordant across all participants. For Item 1, one participant reported a discordant allele at the D21S11 locus. This participant recorded an allele call of "30,30.1" whereas the consensus at this locus was "30,30.2".

Twenty three participants reported full YSTR results for Item 3. Of these participants, the reported individual profiles for Item 3 were consistent.

Paternity DNA Statistics:

All 64 participants reported that the source of Item 3 was excluded as the biological father of Item 2. Most participants either reported a value of zero or did not respond for the combined paternity index as well as the probability of paternity. Two participants reported a much larger value for the combined paternity index; one reported 147 and the other reported 283 with probability of paternity values of 99.3% and 99.9% respectively. The most frequently reported population databases were NIST-STRBASE with 23 participants and FBI PopStats with seven participants.

Kinship DNA Statistics

There were 29 participants who responded for the paper kinship exercise. Two participants reported an inconsistent likelihood ratio (LR) value, each for a different locus. Both participants' LR values were differing from the consensus LR by +/-0.007 and could not be accounted for by rounding or truncation. Approximately 79% of participants reported a combined Kinship Index (KI) of ~186. Six participants reported KI values that differed from the consensus but falling within a range of 179 to 193. One participant reported a combined KI as a percentage. Of the individuals responding, 27 (93%) reported that the claim of a half sibling relationship was supported. Two participants reported that the claim was not supported, both of whom had a combined KI that was consistent with the consensus.

STR Amplification Kit(s) & Results

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 1 - STR Results

2JVDMT	PowerPlex® Fusion					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23	9,13	7,11		6,9.3	8,9
	18,19					
<hr/>						
2JYZZZ	Identifiler® DIRECT					
	-	17,24	-	15,17	12	-
1	8,10	10,14	-	-	11	11,12
	12	13,15	30,30.2	-	X,X	12
	23	-	-	-	6,9.3	8,9
	18,19	-	-	-	-	
<hr/>						
3749R2	PowerPlex® Fusion					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23	9,13	7,11		6,9.3	8,9
	18,19					
<hr/>						
37K82T	Investigator® 24plex ESSplex SE Plus (Familias)					
	15,16	17,24	11,14	15,17		
1		10,14	13,16	19,21		11,12
	12,12	13,15	30,30.2	11,16	X,X	
	23,23			24.2,26.2	6,9.3	
	18,19					
<hr/>						
3ZXD92	Identifiler® Plus					
		17,24		15,17	12,12	
1	8,10	10,14			11,11	11,12
	12,12	13,15	30,30.2		X,X	12,12
	23,23				6,9.3	8,9
	18,19					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 1 - STR Results

62KQNP	PowerPlex® Fusion					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X,X	12
	23	9,13	7,11		6,9.3	8,9
	18,19					
73DQGU	PowerPlex® Fusion 6C					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23	9,13	7,11	24.2,26.2	6,9.3	8,9
	18,19					
89XB2L	PowerPlex® FUSION, PowerPlex ESX 17					
	15,16	17,24	11,14	15,17	12,12	
1	8,10	10,14	13,16	19,21	11,11	11,12
	12,12	13,15	30,30.2	11,16	X,X	12,12
	23,23	9,13	7,11	24.2,26.2	6,9.3	8,9
	18,19					
8WL32E	PowerPlex® Fusion 6C, Power Plex CS7 (Familias (3.2))					
	15,16	17,24	11,14	15,17	12	-
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23	9,13	7,11	24.2,26.2	6,9.3	8,9
	18,19	-	-	-		
9B2GZR	Identifiler® Direct					
		17,24		15,17	12	
1	8,10	10,14			11	11,12
	12	13,15	30,30.2		X,X	12
	23				6,9.3	8,9
	18,19					
9WF9VE	PowerPlex® Fusion 6C					
	15,16	17,24	11,14	15,17	12,12	
1	8,10	10,14	13,16	19,21	11,11	11,12
	12,12	13,15	30,30.2	11,16	X,X	12,12
	23,23	9,13	7,11	24.2,26.2	6,9.3	8,9
	18,19					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 1 - STR Results

C2K2LF	PowerPlex® 21					
	15,16	17,24		15,17	12,12	11,17
1	8,10	10,14		19,21	11,11	11,12
	12,12	13,15	30,30.2		X,X	12,12
	23,23	9,13	7,11		6,9.3	8,9
	18,19					
C9YWFN	PowerPlex® Fusion					
	15,16	17,24	11,14	15,17	12,12	
1	8,10	10,14	13,16	19,21	11,11	11,12
	12,12	13,15	30,30.2	11,16	X,X	12,12
	23,23	9,13	7,11		6,9.3	8,9
	18,19					
CLMWAC	Identifiler® Plus, PowerPlex® 21					
	15,16	17,24		15,17	12,12	11,17
1	8,10	10,14		19,21	11,11	11,12
	12,12	13,15	30,30.2		X,X	12,12
	23,23	9,13	7,11		6,9.3	8,9
	18,19					
CU3P9E	GlobalFiler™					
	15,16	17,24	11,14	15,17	12,12	
1	8,10	10,14	13,16	19,21	11,11	11,12
	12,12	13,15	30,30.2	11,16	X,X	12,12
	23,23			24.2,26.2	6,9.3	8,9
	18,19					
DK727G	GlobalFiler™ Express(24)					
	15,16	17,24	11,14	15,17	12,12	
1	8,10	10,14	13,16	19,21	11,11	11,12
	12,12	13,15	30,30.2	11,16	X,X	12,12
	23,23			24.2,26.2	6,9.3	8,9
	18,19					
E4J4F9	PowerPlex® Fusion					
	15,16	17,24	11,14	15,17	12,12	
1	8,10	10,14	13,16	19,21	11,11	11,12
	12,12	13,15	30,30.2	11,16	X,X	12,12
	23,23	9,13	7,11		6,9.3	8,9
	18,19					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 1 - STR Results

E4MLMK	PowerPlex® Fusion 6C					
	15,16	17,24	11,14	15,17	12,12	
1	8,10	10,14	13,16	19,21	11,11	11,12
	12,12	13,15	30,30.2	11,16	X,X	12,12
	23,23	9,13	7,11	24.2,26.2	6,9.3	8,9
	18,19					
EMAGTD	Identifiler® Plus, NGMSElect (NDB software)					
	15,16	17,24	11,14	15,17	12,12	
1	8,10	10,14	13,16	19,21	11,11	11,12
	12,12	13,15	30,30.2	11,16	X,X	12,12
	23,23			24.2,26.2	6,9.3	8,9
	18,19					
G3ZUNK	GlobalFiler™					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X,X	12
	23			24.2,26.2	6,9.3	8,9
	18,19					
GC624K	GlobalFiler™					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23			24.2,26.2	6,9.3	8,9
	18,19					
GZBRC6	NGM SElect					
	15,16	17,24	11,14	15,17		
1		10,14	13,16	19,21		11,12
	12	13,15	30,30.2	11,16	X	
	23			24.2,26.2	6,9.3	
	18,19					
HH9CPJ	Identifiler® Plus					
		17,24		15,17	12	
1	8,10	10,14			11	11,12
	12	13,15	30,30.2		X	12
	23				6,9.3	8,9
	18,19					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 1 - STR Results

HM7NVG	PowerPlex® Fusion 6C					
	15,16	17,24	11,14	15,17	12,12	
1	8,10	10,14	13,16	19,21	11,11	11,12
	12,12	13,15	30,30.2	11,16	X,X	12,12
	23,23	9,13	7,11	24.2,26.2	6,9.3	8,9
	18,19					
HMHP93	PowerPlex® Fusion 5C					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23	9,13	7,11		6,9.3	8,9
	18,19	ND				
J2X7XK	PowerPlex® ESI17					
	15,16	17,24	11,14	15,17		
1		10,14	13,16	19,21		11,12
	12,12	13,15	30,30.2	11,16	X,X	
	23,23			24.2,26.2	6,9.3	
	18,19					
JCBAZA	GlobalFiler™ Express (24)					
	15,16	17,24	11,14	15,17	12,12	
1	8,10	10,14	13,16	19,21	11,11	11,12
	12,12	13,15	30,30.2	11,16	X,X	12,12
	23,23			24.2,26.2	6,9.3	8,9
	18,19					
JTLPQK	PowerPlex® 21, GlobalFiler™					
	15,16	17,24	11,14	15,17	12	11,17
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23	9,13	7,11	24.2,26.2	6,9.3	8,9
	18,19					
JZMYWC	PowerPlex® Fusion					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23	9,13	7,11		6,9.3	8,9
	18,19					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 1 - STR Results

KD6BNC	GlobalFiler™						
		15,16	17,24	11,14	15,17	12,12	
	1	8,10	10,14	13,16	19,21	11,11	11,12
		12,12	13,15	30,30.2	11,16	X,X	12,12
		23,23			24.2,26.2	6,9.3	8,9
		18,19					
KG24D2	PowerPlex® PP21						
		15,16	17,24		15,17	12	11,17
	1	8,10	10,14		19,21	11	11,12
		12	13,15	30,30.2		X	12
		23	9,13	7,11		6,9.3	8,9
		18,19					
L272A3	PowerPlex® 18D						
			17,24		15,17	12,12	
	1	8,10	10,14			11,11	11,12
		12,12	13,15	30,30.1		X,X	12,12
		23,23	9,13	7,11		6,9.3	8,9
		18,19					
L6APX6	GlobalFiler™, GlobalFiler Express						
		15,16	17,24	11,14	15,17	12	
	1	8,10	10,14	13,16	19,21	11	11,12
		12	13,15	30,30.2	11,16	X	12
		23			24.2,26.2	6,9.3	8,9
		18,19					
LU8G88	GlobalFiler™ Express						
		15,16	17,24	11,14	15,17	12,12	
	1	8,10	10,14	13,16	19,21	11,11	11,12
		12,12	13,15	30,30.2	11,16	X,X	12,12
		23,23			24.2,26.2	6,9.3	8,9
		18,19					
MFKHZ6	PowerPlex® 21						
		15,16	17,24		15,17	12,12	11,17
	1	8,10	10,14		19,21	11,11	11,12
		12,12	13,15	30,30.2		X,X	12,12
		23,23	9,13	7,11		6,9.3	8,9
		18,19					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 1 - STR Results

MZQVUC	PowerPlex® Fusion 6C					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X,X	12
	23	9,13	7,11	24.2,26.2	6,9.3	8,9
	18,19					
N3D397	Identifiler® +M					
		17,24		15,17	12,12	
1	8,10	10,14			11,11	11,12
	12,12	13,15	30,30.2		X,X	12,12
	23,23				6,9.3	8,9
	18,19					
NNXTQB	PowerPlex® Fusion 6C					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23	9,13	7,11	24.2,26.2	6,9.3	8,9
	18,19					
NQKDWE	Identifiler® Direct					
		17,24		15,17	12	
1	8,10	10,14			11	11,12
	12	13,15	30,30.2		X,X	12
	23				6,9.3	8,9
	18,19					
P38936	PowerPlex® Fusion					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23	9,13	7,11		6,9.3	8,9
	18,19	NR				
PTMRHB	GlobalFiler™					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X,X	12
	23			24.2,26.2	6,9.3	8,9
	18,19					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 1 - STR Results

PUVRV6	Identifiler®					
		17,24		15,17	12,12	
1		8,10	10,14		11,11	11,12
		12,12	13,15	30,30.2	X,X	12,12
		23,23			6,9.3	8,9
		18,19				
<hr/>						
QHG8V9	PowerPlex® Fusion 6C					
		15,16	17,24	11,14	15,17	12
1		8,10	10,14	13,16	19,21	11,12
		12	13,15	30,30.2	11,16	X
		23	9,13	7,11	24.2,26.2	6,9.3
		18,19				8,9
<hr/>						
QTGXCB	GlobalFiler™					
		15,16	17,24	11,14	15,17	12
1		8,10	10,14	13,16	19,21	11,12
		12	13,15	30,30.2	11,16	X
		23			24.2,26.2	6,9.3
		18,19				8,9
<hr/>						
RALNU7	GlobalFiler™					
		15,16	17,24	11,14	15,17	12,12
1		8,10	10,14	13,16	19,21	11,11
		12,12	13,15	30,30.2	11,16	X,X
		23,23			24.2,26.2	6,9.3
		18,19				8,9
<hr/>						
RF9CNB	Identifiler® Direct, PowerPlex® 21, CS7, FUSION, ESX17					
		15,16	17,24	11,14	15,17	12
1		8,10	10,14	13,16	19,21	11,17
		12	13,15	30,30.2	11,16	X
		23	9,13	7,11	24.2,26.2	6,9.3
		18,19				8,9
<hr/>						
RG7PC4	PowerPlex® Fusion					
		15,16	17,24	11,14	15,17	12
1		8,10	10,14	13,16	19,21	11,12
		12	13,15	30,30.2	11,16	X
		23	9,13	7,11	24.2,26.2	6,9.3
		18,19				8,9

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 1 - STR Results

RV32K8	GlobalFiler™					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23			24.2,26.2	6,9.3	8,9
	18,19	NR			NR	
RVJ3J4	PowerPlex® Fusion					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23	9,13	7,11		6,9.3	8,9
	18,19	NR				
TERNJ2	PowerPlex® Fusion					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23	9,13	7,11		6,9.3	8,9
	18,19	--				
TGZU63	PowerPlex® Fusion					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X,X	12
	23	9,13	7,11		6,9.3	8,9
	18,19					
U4R9H4	GlobalFiler™					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X,X	12
	23			24.2,26.2	6,9.3	8,9
	18,19					
UHPKQ8	Identifiler® Direct					
	-	17,24	-	15,17	12	-
1	8,10	10,14	-	-	11	11,12
	12	13,15	30,30.2	-	X,X	12
	23	-	-	-	6,9.3	8,9
	18,19	-	-	-	-	

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	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	

Item 1 - STR Results

WRKETV	Identifiler® Plus, NGMSelect (DNASTat v.1.2)					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23			24.2,26.2	6,9.3	8,9
	18,19					
WRNXZ8	PowerPlex® Fusion 5C					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23	9,13	7,11		6,9.3	8,9
	18,19					
WYKRX6	Identifiler® Direct					
		17,24		15,17	12	
1	8,10	10,14			11	11,12
	12	13,15	30,30.2		X,X	12
	23				6,9.3	8,9
	18,19					
X73RKV	GlobalFiler™ Express					
	15,16	17,24	11,14	15,17	12,12	
1	8,10	10,14	13,16	19,21	11,11	11,12
	12,12	13,15	30,30.2	11,16	X,X	12,12
	23,23			24.2,26.2	6,9.3	8,9
	18,19					
XHDZK3	PowerPlex® Fusion 6C					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23	9,13	7,11	24.2,26.2	6,9.3	8,9
	18,19					
YF4CMN	GlobalFiler™ Express					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23			24.2,26.2	6,9.3	8,9
	18,19	-			-	

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	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	

Item 1 - STR Results

YF7VTY	GlobalFiler™					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23			24.2,26.2	6,9.3	8,9
	18,19					
YH96E2	GlobalFiler™ Express					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23			24.2,26.2	6,9.3	8,9
	18,19					
YM4PQX	GlobalFiler™					
	15,16	17,24	11,14	15,17	12	
1	8,10	10,14	13,16	19,21	11	11,12
	12	13,15	30,30.2	11,16	X	12
	23			24.2,26.2	6,9.3	8,9
	18,19					
YT9LAX	GlobalFiler™					
	15,16	17,24	11,14	15,17	12,12	
1	8,10	10,14	13,16	19,21	11,11	11,12
	12,12	13,15	30,30.2	11,16	X,X	12,12
	23,23			24.2,26.2	6,9.3	8,9
	18,19					
Z7CA3R	GlobalFiler™					
	15,16	17,24	11,14	15,17	12,12	
1	8,10	10,14	13,16	19,21	11,11	11,12
	12,12	13,15	30,30.2	11,16	X,X	12,12
	23,23			24.2,26.2	6,9.3	8,9
	18,19					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 2 - STR Results

2JVDMT	PowerPlex® Fusion					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24	9	7		9,9.3	8,10
	17,19					
2JYZZZ	Identifiler® DIRECT					
	-	20,24	-	17,18	12	-
2	10,11	10	-	-	11,13	12
	12,17	13	28,30.2	-	X,X	12
	23,24	-	-	-	9,9.3	8,10
	17,19	-	-	-	-	-
3749R2	PowerPlex® Fusion					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24	9	7		9,9.3	8,10
	17,19					
37K82T	Investigator® 24plex ESSplex SE Plus (Familias)					
	15,17.3	20,24	11,11	17,18		
2		10,10	13,13	21,24		12,12
	12,17	13,13	28,30.2	11,16	X,X	
	23,24			18,26.2	9,9.3	
	17,19					
3ZXD92	Identifiler® Plus					
		20,24		17,18	12,12	
2	10,11	10,10			11,13	12,12
	12,17	13,13	28,30.2		X,X	12,12
	23,24				9,9.3	8,10
	17,19					
62KQNP	PowerPlex® Fusion					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X,X	12
	23,24	9	7		9,9.3	8,10
	17,19					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 2 - STR Results

73DQGU	PowerPlex® Fusion 6C					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24	9	7	18,26.2	9,9.3	8,10
	17,19					
89XB2L	PowerPlex® FUSION, PowerPlex ESX 17					
	15,17.3	20,24	11,11	17,18	12,12	
2	10,11	10,10	13,13	21,24	11,13	12,12
	12,17	13,13	28,30.2	11,16	X,X	12,12
	23,24	9,9	7,7	18,26.2	9,9.3	8,10
	17,19					
8WL32E	PowerPlex® Fusion 6C, Power Plex CS7 (Familias 3.2)					
	15,17.3	20,24	11	17,18	12	-
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24	9	7	18,26.2	9,9.3	8,10
	17,19	-	-	-		
9B2GZR	Identifiler® Direct					
		20,24		17,18	12	
2	10,11	10			11,13	12
	12,17	13	28,30.2		X,X	12
	23,24				9,9.3	8,10
	17,19					
9WF9VE	PowerPlex® Fusion 6C					
	15,17.3	20,24	11,11	17,18	12,12	
2	10,11	10,10	13,13	21,24	11,13	12,12
	12,17	13,13	28,30.2	11,16	X,X	12,12
	23,24	9,9	7,7	18,26.2	9,9.3	8,10
	17,19					
C2K2LF	PowerPlex® 21					
	15,17.3	20,24		17,18	12,12	11,11
2	10,11	10,10		21,24	11,13	12,12
	12,17	13,13	28,30.2		X,X	12,12
	23,24	9,9	7,7		9,9.3	8,10
	17,19					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 2 - STR Results

C9YWFN	PowerPlex® Fusion					
	15,17.3	20,24	11,11	17,18	12,12	
2	10,11	10,10	13,13	21,24	11,13	12,12
	12,17	13,13	28,30.2	11,16	X,X	12,12
	23,24	9,9	7,7		9,9.3	8,10
	17,19					
CLMWAC	Identifiler® Plus, PowerPlex® 21					
	15,17.3	20,24		17,18	12,12	11,11
2	10,11	10,10		21,24	11,13	12,12
	12,17	13,13	28,30.2		X,X	12,12
	23,24	9,9	7,7		9,9.3	8,10
	17,19					
CU3P9E	GlobalFiler™					
	15,17.3	20,24	11,11	17,18	12,12	
2	10,11	10,10	13,13	21,24	11,13	12,12
	12,17	13,13	28,30.2	11,16	X,X	12,12
	23,24			18,26.2	9,9.3	8,10
	17,19					
DK727G	GlobalFiler™ Express(24)					
	15,17.3	20,24	11,11	17,18	12,12	
2	10,11	10,10	13,13	21,24	11,13	12,12
	12,17	13,13	28,30.2	11,16	X,X	12,12
	23,24			18,26.2	9,9.3	8,10
	17,19					
E4J4F9	PowerPlex® Fusion					
	15,17.3	20,24	11,11	17,18	12,12	
2	10,11	10,10	13,13	21,24	11,13	12,12
	12,17	13,13	28,30.2	11,16	X,X	12,12
	23,24	9,9	7,7		9,9.3	8,10
	17,19					
E4MLMK	PowerPlex® Fusion 6C					
	15,17.3	20,24	11,11	17,18	12,12	
2	10,11	10,10	13,13	21,24	11,13	12,12
	12,17	13,13	28,30.2	11,16	X,X	12,12
	23,24	9,9	7,7	18,26.2	9,9.3	8,10
	17,19					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 2 - STR Results

EMAGTD	Identifiler® Plus, NGMSElect (NDB Software)					
	15,17.3	20,24	11,11	17,18	12,12	
2	10,11	10,10	13,13	21,24	11,13	12,12
	12,17	13,13	28,30.2	11,16	X,X	12,12
	23,24			18,26.2	9,9.3	8,10
	17,19					
G3ZUNK	GlobalFiler™					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X,X	12
	23,24			18,26.2	9,9.3	8,10
	17,19					
GC624K	GlobalFiler™					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24			18,26.2	9,9.3	8,10
	17,19					
GZBRC6	NGM SElect					
	15,17.3	20,24	11	17,18		
2	10,11	10	13	21,24		12
	12,17	13	28,30.2	11,16	X	
	23,24			18,26.2	9,9.3	
	17,19					
HH9CPJ	Identifiler® Plus					
		20,24		17,18	12	
2	10,11	10			11,13	12
	12,17	13	28,30.2		X	12
	23,24				9,9.3	8,10
	17,19					
HM7NVG	PowerPlex® Fusion 6C					
	15,17.3	20,24	11,11	17,18	12,12	
2	10,11	10,10	13,13	21,24	11,13	12,12
	12,17	13,13	28,30.2	11,16	X,X	12,12
	23,24	9,9	7,7	18,26.2	9,9.3	8,10
	17,19					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 2 - STR Results

HMHP93	PowerPlex® Fusion 5C					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24	9	7		9,9.3	8,10
	17,19	ND				
J2X7XK	PowerPlex® ESI17					
	15,17.3	20,24	11,11	17,18		
2	10,11	10,10	13,13	21,24		12,12
	12,17	13,13	28,30.2	11,16	X,X	
	23,24			18,26.2	9,9.3	
	17,19					
JCBAZA	GlobalFiler™ Express (24)					
	15,17.3	20,24	11,11	17,18	12,12	
2	10,11	10,10	13,13	21,24	11,13	12,12
	12,17	13,13	28,30.2	11,16	X,X	12,12
	23,24			18,26.2	9,9.3	8,10
	17,19					
JTLPQK	PowerPlex® 21, GlobalFiler™					
	15,17.3	20,24	11	17,18	12	11
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24	9	7	18,26.2	9,9.3	8,10
	17,19					
JZMYWC	PowerPlex® Fusion					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24	9	7		9,9.3	8,10
	17,19					
KD6BNC	GlobalFiler™					
	15,17.3	20,24	11,11	17,18	12,12	
2	10,11	10,10	13,13	21,24	11,13	12,12
	12,17	13,13	28,30.2	11,16	X,X	12,12
	23,24			18,26.2	9,9.3	8,10
	17,19					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 2 - STR Results

KG24D2	PowerPlex® PP21						
		15,17.3	20,24		17,18	12	11
	2	10,11	10		21,24	11,13	12
		12,17	13	28,30.2		X	12
		23,24	9	7		9,9.3	8,10
		17,19					
L272A3	PowerPlex® 18D						
			20,24		17,18	12,12	
	2	10,11	10,10			11,13	12,12
		12,17	13,13	28,30.2		X,X	12,12
		23,24	9,9	7,7		9,9.3	8,10
		17,19					
L6APX6	GlobalFiler™, GlobalFiler Express						
		15,17.3	20,24	11	17,18	12	
	2	10,11	10	13	21,24	11,13	12
		12,17	13	28,30.2	11,16	X	12
		23,24			18,26.2	9,9.3	8,10
		17,19					
LU8G88	GlobalFiler™ Express						
		15,17.3	20,24	11,11	17,18	12,12	
	2	10,11	10,10	13,13	21,24	11,13	12,12
		12,17	13,13	28,30.2	11,16	X,X	12,12
		23,24			18,26.2	9,9.3	8,10
		17,19					
MFKHZ6	PowerPlex® 21						
		15,17.3	20,24		17,18	12,12	11,11
	2	10,11	10,10		21,24	11,13	12,12
		12,17	13,13	28,30.2		X,X	12,12
		23,24	9,9	7,7		9,9.3	8,10
		17,19					
MZQVUC	PowerPlex® Fusion 6C						
		15,17.3	20,24	11	17,18	12	
	2	10,11	10	13	21,24	11,13	12
		12,17	13	28,30.2	11,16	X,X	12
		23,24	9	7	18,26.2	9,9.3	8,10
		17,19					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 2 - STR Results

N3D397	Identifiler® +M					
		20,24		17,18	12,12	
2	10,11	10,10			11,13	12,12
	12,17	13,13	28,30.2		X,X	12,12
	23,24				9,9.3	8,10
	17,19					
NNXTQB	PowerPlex® Fusion 6C					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24	9	7	18,26.2	9,9.3	8,10
	17,19					
NQKDWE	Identifiler® Direct					
		20,24		17,18	12	
2	10,11	10			11,13	12
	12,17	13	28,30.2		X,X	12
	23,24				9,9.3	8,10
	17,19					
P38936	PowerPlex® Fusion					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24	9	7		9,9.3	8,10
	17,19	NR				
PTMRHB	GlobalFiler™					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X,X	12
	23,24			18,26.2	9,9.3	8,10
	17,19					
PUVRV6	Identifiler®					
		20,24		17,18	12,12	
2	10,11	10,10			11,13	12,12
	12,17	13,13	28,30.2		X,X	12,12
	23,24				9,9.3	8,10
	17,19					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	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	

Item 2 - STR Results

QH8V9	PowerPlex® Fusion 6C					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24	9	7	18,26.2	9,9.3	8,10
	17,19					
QTGXCB	GlobalFiler™					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24			18,26.2	9,9.3	8,10
	17,19					
RALNU7	GlobalFiler™					
	15,17.3	20,24	11,11	17,18	12,12	
2	10,11	10,10	13,13	21,24	11,13	12,12
	12,17	13,13	28,30.2	11,16	X,X	12,12
	23,24			18,26.2	9,9.3	8,10
	17,19					
RF9CNB	Identifiler® DIRECT, PowerPlex® 21, CS7, FUSION, ESX17					
	15,17.3	20,24	11	17,18	12	11
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24	9	7	18,26.2	9,9.3	8,10
	17,19					
RG7PC4	PowerPlex® Fusion					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24	9	7		9,9.3	8,10
	17,19					
RV32K8	GlobalFiler™					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24			18,26.2	9,9.3	8,10
	17,19	NR			NR	

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	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	

Item 2 - STR Results

RVJ3J4	PowerPlex® Fusion						
	15,17.3	20,24	11	17,18	12		
	2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12	
	23,24	9	7		9,9.3	8,10	
	17,19	NR					
TERNJ2	PowerPlex® Fusion						
	15,17.3	20,24	11	17,18	12		
	2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12	
	23,24	9	7		9,9.3	8,10	
	17,19	--					
TGZU63	PowerPlex® Fusion						
	15,17.3	20,24	11	17,18	12		
	2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X,X	12	
	23,24	9	7		9,9.3	8,10	
	17,19						
U4R9H4	GlobalFiler™						
	15,17.3	20,24	11	17,18	12		
	2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X,X	12	
	23,24			18,26.2	9,9.3	8,10	
	17,19						
UHPKQ8	Identifiler® Direct						
	-	20,24	-	17,18	12	-	
	2	10,11	10	-	-	11,13	12
	12,17	13	28,30.2	-	X,X	12	
	23,24	-	-	-	9,9.3	8,10	
	17,19	-	-	-	-		
WRKETV	Identifiler® Plus, NGMSelect (DNASTat v.1.2)						
	15,17.3	20,24	11	17,18	12		
	2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12	
	23,24			18,26.2	9,9.3	8,10	
	17,19						

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 2 - STR Results

WRNXZ8	PowerPlex® Fusion 5C					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24	9	7		9,9.3	8,10
	17,19					
WYKRX6	Identifiler® Direct					
		20,24		17,18	12	
2	10,11	10			11,13	12
	12,17	13	28,30.2		X,X	12
	23,24				9,9.3	8,10
	17,19					
X73RKV	GlobalFiler™ Express					
	15,17.3	20,24	11,11	17,18	12,12	
2	10,11	10,10	13,13	21,24	11,13	12,12
	12,17	13,13	28,30.2	11,16	X,X	12,12
	23,24			18,26.2	9,9.3	8,10
	17,19					
XHDZK3	PowerPlex® Fusion 6C					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24	9	7	18,26.2	9,9.3	8,10
	17,19					
YF4CMN	GlobalFiler™ Express					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24			18,26.2	9,9.3	8,10
	17,19	-			-	
YF7VTY	GlobalFiler™					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24			18,26.2	9,9.3	8,10
	17,19					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 2 - STR Results

YH96E2	GlobalFiler™ Express					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24			18,26.2	9,9.3	8,10
	17,19					
YM4PQX	GlobalFiler™					
	15,17.3	20,24	11	17,18	12	
2	10,11	10	13	21,24	11,13	12
	12,17	13	28,30.2	11,16	X	12
	23,24			18,26.2	9,9.3	8,10
	17,19					
YT9LAX	GlobalFiler™					
	15,17.3	20,24	11,11	17,18	12,12	
2	10,11	10,10	13,13	21,24	11,13	12,12
	12,17	13,13	28,30.2	11,16	X,X	12,12
	23,24			18,26.2	9,9.3	8,10
	17,19					
Z7CA3R	GlobalFiler™					
	15,17.3	20,24	11,11	17,18	12,12	
2	10,11	10,10	13,13	21,24	11,13	12,12
	12,17	13,13	28,30.2	11,16	X,X	12,12
	23,24			18,26.2	9,9.3	8,10
	17,19					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 3 - STR Results

2JVDMT	PowerPlex® Fusion					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12		6	8,9
	16	11				
2JYZZZ	Identifiler® DIRECT					
	-	17,18	-	14,16	8,12	-
3	8,10	13,15	-	-	12	10,12
	15,17	13	29,31.2	-	X,Y	11,12
	20,24	-	-	-	6	8,9
	16	-	-	-	-	
3749R2	PowerPlex® Fusion					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12		6	8,9
	16	11				
37K82T	Investigator® 24plex ESSplex SE Plus (Familias)					
	13,16	17,18	11,12	14,16		
3		13,15	11,13	18,20		10,12
	15,17	13,13	29,31.2	11,15	X,Y	
	20,24			15,19	6,6	
	16,16					
3ZXD92	Identifiler® Plus					
		17,18		14,16	8,12	
3	8,10	13,15			12,12	10,12
	15,17	13,13	29,31.2		X,Y	11,12
	20,24				6,6	8,9
	16,16					
62KQNP	PowerPlex® Fusion					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12		6	8,9
	16	11				

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 3 - STR Results

73DQGU	PowerPlex® Fusion 6C					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12	15,19	6	8,9
	16	11	17	19		
89XB2L	PowerPlex® FUSION, PowerPlex ESX 17					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12,12	10,12
	15,17	13,13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12,12	15,19	6,6	8,9
	16,16	11				
8WL32E	PowerPlex® Fusion 6C, PP CS7 (Familias (3.2))					
	13,16	17,18	11,12	14,16	8,12	-
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12	15,19	6	8,9
	16	11	17	19		
9B2GZR	Identifiler® Direct					
		17,18		14,16	8,12	
3	8,10	13,15			12	10,12
	15,17	13	29,31.2		X,Y	11,12
	20,24				6	8,9
	16					
9WF9VE	PowerPlex® Fusion 6C					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12,12	10,12
	15,17	13,13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12,12	15,19	6,6	8,9
	16,16	11	17	19		
C2K2LF	PowerPlex® 21					
	13,16	17,18		14,16	8,12	16,17
3	8,10	13,15		18,20	12,12	10,12
	15,17	13,13	29,31.2		X,Y	11,12
	20,24	2.2,9	12,12		6,6	8,9
	16,16					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 3 - STR Results

C9YWFN	PowerPlex® Fusion					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12,12	10,12
	15,17	13,13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12,12		6,6	8,9
	16,16	11				
CLMWAC	Identifiler® Plus, PowerPlex® 21					
	13,16	17,18		14,16	8,12	16,17
3	8,10	13,15		18,20	12,12	10,12
	15,17	13,13	29,31.2		X,Y	11,12
	20,24	2.2,9	12,12		6,6	8,9
	16,16					
CU3P9E	GlobalFiler™					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12,12	10,12
	15,17	13,13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6,6	8,9
	16,16	11			2	
DK727G	GlobalFiler™ Express(24)					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12,12	10,12
	15,17	13,13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6,6	8,9
	16,16	11			2	
E4J4F9	PowerPlex® Fusion					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12,12	10,12
	15,17	13,13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12,12		6,6	8,9
	16,16	11				
E4MLMK	PowerPlex® Fusion 6C					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12,12	10,12
	15,17	13,13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12,12	15,19	6,6	8,9
	16,16	11	17	19		

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 3 - STR Results

EMAGTD	Identifiler® Plus, NGMSElect (NDB Software)					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12,12	10,12
	15,17	13,13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6,6	8,9
	16,16					
G3ZUNK	GlobalFiler™					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6	8,9
	16	11			2	
GC624K	GlobalFiler™					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6	8,9
	16	11			2	
GZBRC6	NGM SElect					
	13,16	17,18	11,12	14,16		
3		13,15	11,13	18,20		10,12
	15,17	13	29,31.2	11,15	X,Y	
	20,24			15,19	6	
	16					
HH9CPJ	Identifiler® Plus					
		17,18		14,16	8,12	
3	8,10	13,15			12	10,12
	15,17	13	29,31.2		X,Y	11,12
	20,24				6	8,9
	16					
HM7NVG	PowerPlex® Fusion 6C					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12,12	10,12
	15,17	13,13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12,12	15,19	6,6	8,9
	16,16	11	17	19		

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 3 - STR Results

HMHP93	PowerPlex® fusion 5C					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12		6	8,9
	16	11				
J2X7XK	PowerPlex® ESI17					
	13,16	17,18	11,12	14,16		
3		13,15	11,13	18,20		10,12
	15,17	13,13	29,31.2	11,15	X,Y	
	20,24			15,19	6,6	
	16,16					
JCBAZA	GlobalFiler™ Express(24)					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12,12	10,12
	15,17	13,13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6,6	8,9
	16,16	11			2	
JTLPQK	PowerPlex® 21, GlobalFiler™					
	13,16	17,18	11,12	14,16	8,12	16,17
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12	15,19	6	8,9
	16	11			2	
JZMYWC	PowerPlex® Fusion					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12		6	8,9
	16	11				
KD6BNC	GlobalFiler™					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12,12	10,12
	15,17	13,13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6,6	8,9
	16,16	11			2	

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 3 - STR Results

KG24D2	PowerPlex® PP21					
	13,16	17,18		14,16	8,12	16,17
3	8,10	13,15		18,20	12	10,12
	15,17	13	29,31.2		X,Y	11,12
	20,24	2.2,9	12		6	8,9
	16					
L272A3	PowerPlex® 18D					
		17,18		14,16	8,12	
3	8,10	13,15			12,12	10,12
	15,17	13,13	29,31.2		X,Y	11,12
	20,24	2.2,9	12,12		6,6	8,9
	16,16					
L6APX6	GlobalFiler™, GlobalFiler Express					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6	8,9
	16	11			2	
LU8G88	GlobalFiler™ Express					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12,12	10,12
	15,17	13,13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6,6	8,9
	16,16	11			2	
MFKHZ6	PowerPlex® 21					
	13,16	17,18		14,16	8,12	16,17
3	8,10	13,15		18,20	12,12	10,12
	15,17	13,13	29,31.2		X,Y	11,12
	20,24	2.2,9	12,12		6,6	8,9
	16,16					
MZQVUC	PowerPlex® Fusion 6C					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12	15,19	6	8,9
	16	11	17	19		

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 3 - STR Results

N3D397

		17,18		14,16	8,12	
3	8,10	13,15			12,12	10,12
	15,17	13,13	29,31.2		X,Y	11,12
	20,24				6,6	8,9
	16,16					

NNXTQB PowerPlex® Fusion 6C

		17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12	15,19	6	8,9
	16	11	17	19		

NQKDWE Identifiler® Direct

		17,18		14,16	8,12	
3	8,10	13,15			12	10,12
	15,17	13	29,31.2		X,Y	11,12
	20,24				6	8,9
	16					

P38936 PowerPlex® Fusion

		17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12		6	8,9
	16	11				

PTMRHB GlobalFiler™ (eDNA Bullet)

		17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6	8,9
	16	11			2	

PUVRV6 Identifiler®

		17,18		14,16	8,12	
3	8,10	13,15			12,12	10,12
	15,17	13,13	29,31.2		X,Y	11,12
	20,24				6,6	8,9
	16,16					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 3 - STR Results

QHG8V9	PowerPlex® Fusion 6C					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12	15,19	6	8,9
	16	11	17	19		
QTGXCB	GlobalFiler™					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6	8,9
	16	11			2	
RALNU7	GlobalFiler™					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12,12	10,12
	15,17	13,13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6,6	8,9
	16,16	11			2	
RF9CNB	Identifiler® Direct, PowerPlex® 21, CS7. FUSION, ESX17					
	13,16	17,18	11,12	14,16	8,12	16,17
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12	15,19	6	8,9
	16	11				
RG7PC4	PowerPlex® Fusion					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12		6	8,9
	16	11				
RV32K8	GlobalFiler™					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6	8,9
	16	11			2	

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 3 - STR Results

RVJ3J4	PowerPlex® Fusion					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12		6	8,9
	16	11				
TERNJ2	PowerPlex® Fusion					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12		6	8,9
	16	11				
TGZU63	PowerPlex® Fusion					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12		6	8,9
	16	11				
U4R9H4	GlobalFiler™					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6	8,9
	16	11			2	
UHPKQ8	Identifiler® Direct					
	-	17,18	-	14,16	8,12	-
3	8,10	13,15	-	-	12	10,12
	15,17	13	29,31.2	-	X,Y	11,12
	20,24	-	-	-	6	8,9
	16	-	-	-	-	
WRKETV	Identifiler® Plus, PowerPlex® ESI 17Pro, NGMSelect (DNASTat v.1.2)					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6	8,9
	16					

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
Item	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	

Item 3 - STR Results

WRNXZ8	PowerPlex® Fusion 5C					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12		6	8,9
	16	11				
WYKRX6	Identifiler® Direct					
		17,18		14,16	8,12	
3	8,10	13,15			12	10,12
	15,17	13	29,31.2		X,Y	11,12
	20,24				6	8,9
	16					
X73RKV	GlobalFiler™ Express					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12,12	10,12
	15,17	13,13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6,6	8,9
	16,16	11			2	
XHDZK3	PowerPlex® Fusion 6C					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24	2.2,9	12	15,19	6	8,9
	16	11	17	19		
YF4CMN	GlobalFiler™ Express					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6	8,9
	16	11			2	
YF7VTY	GlobalFiler™					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6	8,9
	16	11			2	

TABLE 1

WebCode	Amplification Kits (Probabilistic Genotyping)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	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	

Item 3 - STR Results

YH96E2	GlobalFiler™ Express					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6	8,9
	16	11			2	
YM4PQX	GlobalFiler™					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12	10,12
	15,17	13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6	8,9
	16	11			2	
YT9LAX	GlobalFiler™					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12,12	10,12
	15,17	13,13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6,6	8,9
	16,16	11			2	
Z7CA3R	GlobalFiler™					
	13,16	17,18	11,12	14,16	8,12	
3	8,10	13,15	11,13	18,20	12,12	10,12
	15,17	13,13	29,31.2	11,15	X,Y	11,12
	20,24			15,19	6,6	8,9
	16,16	11			2	

Item 3 Paternity Index Results

TABLE 2

WebCode	Population Database(s)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

2JYZZZ	NIST-STRBASE					
	-	0.0010	-	0.0020	1.3572	-
3PI	0.0020	0.0040	-	-	0.0020	2.4426
	3.2895	4.0717	0.0010	-	-	1.6932
	3.7594	-	-	-	0.00001	0.0001
	0.0030					

3749R2	NIST-STRBASE					
3PI						

37K82T	Local database					
	0	0	1.715	0		
3PI		0	2.178	0		1.76
	3.617	3.481	0	1.124		
	3.191			0	0	
	0					

3ZXD92	NIST-STRBASE					
		0.00		0.00	1.33	
3PI	0.00	0.00			0.00	2.39
	3.23	4.15	0.00			1.66
	3.69				0.00	0.00
	0.00					

73DQGU	NIST-STRBASE					
	0.0002	0.00016	1.37	0.00035	1.35	
3PI	0.0016	0.00004	2.13	0.0000035	.0058	2.44
	3.28	4.07	0.0017	1.48		1.69
	3.74	2.97	0.0000000074	0.012	0.0000012	0.00032
	0.0065					

8WL32E	NIST-STRBASE					
	0	0	1.37893	0	1.357220	-
3PI	0	0	2.137666	0	0	2.442843
	3.289474	4.071254	0	1.487061	-	1.693363
	3.760150	2.974717	0	0	0	0
	0					

TABLE 2

WebCode	Population Database(s)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

9WF9VE	NIST-STRBASE					
	0	0	1.37893	0	1.35722	
3PI	0	0	2.137666	0	0	2.442599
	3.289474	4.071661	0	1.48721	-	1.693193
	3.759398	2.97442	0	0	0	0
	0					

C2K2LF						
	0	0		0	1.3974	0
3PI	0	0		0	0	0
	4.4209	0	0			0
	3.7994	0	0		0	0

C9YWFN	FBI PopStats					
			1.2598		1.3086	
3PI			2.1552			2.7518
	2.8377	3.6443		1.5002		1.7458
	2.9189	3.6873				

CLMWAC	NIST-STRBASE					
	0	0		0	1.357143	0
3PI	0	0		0	0	2.442857
	3.288462	4.071429	0			1.693069
	3.758242	2.973913	0		0	0
	0					

CU3P9E	[Country] caucasian database.					
	EX	EX	1.49	EX	1.43	
3PI	EX	EX	1.71	EX	EX	1.75
	4.16	3.98	EX	1.12		1.58
	3.80			EX	EX	EX
	EX					

E4J4F9	NIST-STRBASE					
	0	0	1.3790	0	1.35714	
3PI	0	0	2.1375	0	0	2.44286
	3.28846	2.03571	0	3.45455		1.69307
	3.75824	2.97391	0		0	0
	0					

TABLE 2

WebCode	Population Database(s)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

EMAGTD	NIST-STRBASE					
	10.060	4.817	1.379	0	1.357	
3PI	0	0	2.138	0	0	2.443
	3.289	4.072	0	1.487		1.693
	3.759			0	0	0
	0					

G3ZUNK	NIST-STRBASE					
	0.0000	0.0000	1.3789	0.0000	1.3572	
3PI	0.0000	0.0000	2.1377	0.0000	0.0000	2.4426
	3.2895	4.0717	0.0000	1.4872		1.6932
	3.7594			0.0000	0.0000	0.0000
	0.0000					

GC624K	Local Specific Database					
	0.00	0.00	1.32	0.00	1.23	
3PI	0.00	0.00	1.29	0.00	0.00	1.54
	3.58	3.22	0.00	0.94		1.33
	3.18			0.00	0.00	0.00
	0.00					

GZBRC6	Local Database					
			1,5			
3PI			2,41			1,52
	4,42	5,04		1,18		
	3,78					

HH9CPJ	NIST-STRBASE					
		0		0	1.36	
3PI	0	0			0	2.44
	3.29	4.07	0			1.69
	3.76				0	0
	0					

HM7NVG	NIST-STRBASE					
3PI						

TABLE 2

WebCode	Population Database(s)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

HMHP93	NIST-STRBASE					
	0.00	0.00	1.38	0.00	1.35	
3PI	0.00	0.00	2.14	0.00	0.00	2.44
	3.29	4.07	0.00	3.45		1.69
	3.76	3.84	0.00		0.00	0.00
	0.00					

JZMYWC	NIST-STRBASE					
3PI						

KD6BNC	FBI PopStats					
	NA	NA	1.37	NA	1.35	
3PI	NA	NA	2.13	NA	NA	2.44
	3.28	4.07	NA	1.48		1.69
	3.75				NA	NA
	NA					

KG24D2	Promega					
	0	0		0	1.3517	0
3PI	0	0		0	0	2.4426
	3.2895	4.0717	0			1.6932
	3.7594	2.9744	0		0	0
	0					

L6APX6	FBI PopStats					
3PI						

MFKHZ6	Combined [State] Database (Country)					
3PI						

TABLE 2

WebCode	Population Database(s)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

NQKDWE	NIST-STRBASE					
		0.0010		0.0020	1.3572	
3PI	0.0020	0.0040			0.0020	2.4426
	3.2895	4.0717	0.0010			1.6932
	3.7594				0.00001	0.0001
	0.0030					

PTMRHB	NIST-STRBASE					
	0	0	1.3789	0	1.3572	
3PI	0	0	2.1377	0	0	2.4426
	3.2895	4.0717	0	1.4872		1.6932
	3.7594			0	0	0
	0					

QTGXCB	Life Technologies Database					
		0.00		0.00	1.37	
3PI	0.00	0.00			0.00	2.66
	2.75	3.35	0.00			1.72
	2.86				0.00	0.00
	0.00					

RALNU7	FBI PopStats, NIST Population					
	0	0	1.37	0	1.35	
3PI	0	0	2.13	0	0	2.44
	3.28	4.07	0	1.48	NA	1.69
	3.75			NA	0	0
	0					

RF9CNB	NIST-STRBASE					
	EXCLUSION	EXCLUSION	*	EXCLUSION	*	EXCLUSION
3PI	EXCLUSION	EXCLUSION	*	EXCLUSION	EXCLUSION	*
	*	*	EXCLUSION	*		*
	*	*	EXCLUSION	EXCLUSION	EXCLUSION	EXCLUSION
	EXCLUSION					

RV32K8	laboratory specific database					
	0.000	0.000	1.260	0.000	1.309	
3PI	0.000	0.000	2.155	0.000	0.000	2.752
	2.838	3.644	0.000	1.500		1.746
	2.919			0.000	0.000	0.000
	0.000					

TABLE 2

WebCode	Population Database(s)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

RVJ3J4 NIST-STRBASE

3PI						

TERNJ2 FBI PopStats, NIST-STRBASE, Promega

	--	--	1.44	--	1.40	
3PI	--	--	2.16	--	--	2.65
	3.04	3.35	--	1.49	1	1.66
	2.69	3.49	--	--	--	--
	--					

U4R9H4 FBI PopStats, NIST population

	NA	NA	1.37	NA	1.35	
3PI	NA	NA	2.13	NA	NA	2.44
	3.28	4.07	NA	1.48	NA	1.69
	3.75			NA	NA	NA
	NA					

UHPKQ8 NIST-STRBASE

	-	0.0010	-	0.0020	1.3572	-
3PI	0.0020	0.0040	-	-	0.0020	2.4426
	3.2895	4.0717	0.0010	-	-	1.6932
	3.7594	-	-	-	0.00001	0.0001
	0.0030					

WRKETV laboratory specific database

	0.000250	0.000261	1.487210	0.000213	1.390047	
3PI	0.001135	0.000058	2.392344	0.000017	0.000800	1.519295
	4.424779	5.050505	0.002686	1.196172		1.636661
	3.676471			0.021552	0.000001	0.000854
	0.001394					

WYKRX6 NIST-STRBASE

		0.0010		0.0020	1.3572	
3PI	0.0020	0.0040			0.0020	2.4426
	3.2895	4.0717	0.0010		--	1.6932
	3.7594				0.00001	0.0001
	0.0030					

TABLE 2

WebCode	Population Database(s)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

XHDZK3	NIST-STRBASE					
	0.0002	0.00016	1.37	0.0003	1.35	
3PI	0.001	4.002E-5	2.13	3.5009E-6	0.005	2.44
	3.28	4.07	0.001	1.48		1.69
	3.74	2.97	7.438E-9	0.01	1.2304E-6	0.0003
	0.006					

YF4CMN	NIST-STRBASE					
	0	0	1.37892995	0	1.357220413	
3PI	0	0	2.137665669	0	0	2.442598925
	3.289473684	4.071661238	0	0.948766603	Not included	1.693193363
	3.759398496			0	0	0
	0					

YT9LAX	FBI PopStats, NIST Population					
	0	0	1.37	0	1.35	
3PI	0	0	2.13	0	0	2.44
	3.28	4.07	0	1.48	NA	1.69
	3.75			0	0	0
	0					

YSTR Amplification Kit(s) & Results

TABLE 3

WebCode	Amplification Kit									
	Item	DYF387S1	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	Y GATA H4	
Item 3 - YSTR Results										
2JYZZZ	Yfiler®									
3	-	14	11,15	13	29	24	11	13	13	
	15	12	12	19	-	16	17	-	-	
	-	-	-	-	-	-	23	-	12	
62KQNP	Yfiler®									
3		14	11,15	13	29	24	11	13	13	
	15	12	12	19		16	17			
							23		12	
89XB2L	PowerPlex® Y 23									
3		14	11,15	13	29	24	11	13	13	
	15	12	12	19		16	17		23	
		12	13	17	19		23	10	12	
9WF9VE	Yfiler®									
3		14	11,15	13	29	24	11	13	13	
	15	12	12	19		16	17			
							23		12	
CLMWAC	Yfiler®									
3		14	11,15	13	29	24	11	13	13	
	15	12	12	19		16	17			
							23		12	
E4J4F9	PowerPlex® Y 23									
3		14	11,15	13	29	24	11	13	13	
	15	12	12	19		16	17		23	
		12	13	17	19		23	10	12	
EMAGTD	Yfiler®									
3		14	11,15	13	29	24	11	13	13	
	15	12	12	19		16	17			
							23		12	
G3ZUNK	Yfiler® Plus									
3	35,36	14	11,15	13	29	24	11	13	13	
	15	12	12	19	28	16	17	10	23	
	38	12		17	19	23	23		12	
JTLPQK	PowerPlex® Y 23									
3		14	11,15	13	29	24	11	13	13	
	15	12	12	19		16	17		23	
		12	13	17	19		23	10	12	
JZMYWC	Yfiler®									
3		14	11,15	13	29	24	11	13	13	
	15	12	12	19		16	17			
							23		12	

TABLE 3

WebCode	Amplification Kit								
Item	DYF387S1	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	Y GATA H4

Item 3 - YSTR Results

KG24D2	PowerPlex® Y Y23								
3	14	11,15	13	29	24	11	13	13	
	15	12	12	19	16	17		23	
	12	13	17	19		23	10	12	
L6APX6	Yfiler® Plus								
3	35,36	14	11,15	13	29	24	11	13	13
	15	12	12	19	28	16	17	10	23
	38	12		17	19	23	23		12
LU8G88	PowerPlex® Y 23								
3	14	11,15	13	29	24	11	13	13	
	15	12	12	19	16	17		23	
	12	13	17	19		23	10	12	
NQKDWE	Yfiler®								
3	14	11,15	13	29	24	11	13	13	
	15	12	12	19	16	17			
						23		12	
RF9CNB	PowerPlex® Y 23								
3	14	11,15	13	29	24	11	13	13	
	15	12	12	19	16	17		23	
	12	13	17	19		23	10	12	
RG7PC4	Yfiler®								
3	14	11,15	13	29	24	11	13	13	
	15	12	12	19	16	17			
						23		12	
TGZU63	Yfiler®								
3	14	11,15	13	29	24	11	13	13	
	15	12	12	19	16	17			
						23		12	
UHPKQ8	Yfiler®								
3	-	14	11,15	13	29	24	11	13	13
	15	12	12	19	-	16	17	-	-
	-	-	-	-	-	-	23	-	12
WRKETV	Yfiler®								
3	14	11,15	13	29	24	11	13	13	
	15	12	12	19	16	17			
						23		12	
WRNXZ8	Yfiler®								
3	14	11,15	13	29	24	11	13	13	
	15	12	12	19	16	17			
						23		12	

TABLE 3

WebCode	Amplification Kit								
Item	DYF387S1	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	Y GATA H4

Item 3 - YSTR Results

WYKRX6	Yfiler®								
3		14	11,15	13	29	24	11	13	13
	15	12	12	19		16	17		
							23		12
YF4CMN	Yfiler® Plus								
3	35,36	14	11,15	13	29	24	11	13	13
	15	12	12	19	28	16	17	10	23
	38	12		17	19	23	23		12
YM4PQX	Yfiler® Plus								
3	35,36	14	11,15	13	29	24	11	13	13
	15	12	12	19	28	16	17	10	23
	38	12		17	19	23	23		12

Additional DNA & PI Results

TABLE 4

Locus	WebCode	Item 1	Item 2	Item 3	Item 3 Paternity Index
F13A	KG24D2	7	3,2,7	5,7	0
F13A01	RF9CNB	7	3,2,7	5,7	EXCLUSION
	8WL32E	7	3,2,7	5,7	0
F13B	RF9CNB	9,10	9,10	6	EXCLUSION
	8WL32E	9,10	9,10	6	0
	KG24D2	9,10	9,10	6	0
FESFPS	RF9CNB	10,11	10,11	10,11	*
	8WL32E	10,11	10,11	10,11	1.809627
	KG24D2	10,11	10,11	10,11	1.8096
LPL	RF9CNB	10,12	11,12	9,12	EXCLUSION
	8WL32E	10,12	11,12	9,12	0
	KG24D2	10,12	11,12	9,12	0
Penta C	RF9CNB	11	11,12	11,12	*
	8WL32E	11	11,12	11,12	2.000200
	KG24D2	11	11,12	11,12	2.0000

Paternity DNA Statistics

TABLE 5

WebCode	Combined Paternity Index	Probability of Paternity	Population Database Used
2JYZZZ	3.80393×10^{-26}	0%	NIST-STRBASE
3749R2			NIST-STRBASE
37K82T	0	0	Local database
3ZXD92	0.0000	0.0000%	NIST-STRBASE
62KQNP	N/A	N/A	
73DQGU	2.5×10^{-47}	Not reported	NIST-STRBASE
8WL32E	0	0	NIST-STRBASE
9B2GZR	-	-	
9WF9VE	0	0	NIST-STRBASE
C2K2LF	0	0	
C9YWFN	283	99.96	FBI PopStats
CLMWAC	0	0%	NIST-STRBASE
CU3P9E	Excluded	Excluded	[Country] caucasian database.
E4J4F9	0	0	NIST-STRBASE
EMAGTD	0		NIST-STRBASE
G3ZUNK	0.0000	0.0000	NIST-STRBASE
GC624K	147	99.32%	Local Specific Database
GZBRC6	0,00	0,00%	Local Database
HH9CPJ	0	0	NIST-STRBASE
HM7NVG			NIST-STRBASE
HMHP93	0.00	0.00	NIST-STRBASE
J2X7XK	N/A	N/A	
JZMYWC	0.0	0.0	NIST-STRBASE
KD6BNC	N/A	N/A	FBI PopStats
KG24D2	0	0	Promega
L6APX6	0	0	FBI PopStats
LU8G88	N/A		

TABLE 5

WebCode	Combined Paternity Index	Probability of Paternity	Population Database Used
MFKHZ6	0	0	Combined [State] Database (Country)
N3D397			Laboratory specific database
NQKDWE	3.80393×10^{-26}	0%	NIST-STRBASE
PTMRHB	0.0000	0.0000%	NIST-STRBASE
QTGXCB	0.00	0	Life Technologies Database
RALNU7	0	0	FBI PopStats, NIST Population
RF9CNB	0.0	0.0	NIST-STRBASE
RV32K8	0	0	laboratory specific database
RVJ3J4			NIST-STRBASE
TERNJ2	0.00	0	FBI PopStats, NIST-STRBASE, Promega
U4R9H4	NA	NA	FBI PopStats, NIST population
UHPKQ8	$3.8039e-26$	0%	NIST-STRBASE
WRKETV	0	0	laboratory specific database
WYKRX6	$3.80393E-26$	0%	NIST-STRBASE
XHDZK3	$2.5E^{-47}$	Not reported	NIST-STRBASE
YF4CMN	0	0	NIST-STRBASE
YT9LAX	0	0	FBI PopStats, NIST Population

Paternity Conclusions

TABLE 6

WebCode	Conclusion	WebCode	Conclusion
2JVDMT	Excluded	J2X7XK	Excluded
2JYZZZ	Excluded	JCBAZA	Excluded
3749R2	Excluded	JTLPQK	Excluded
37K82T	Excluded	JZMYWC	Excluded
3ZXD92	Excluded	KD6BNC	Excluded
62KQNP	Excluded	KG24D2	Excluded
73DQGU	Excluded	L272A3	Excluded
89XB2L	Excluded	L6APX6	Excluded
8WL32E	Excluded	LU8G88	Excluded
9B2GZR	Excluded	MFKHZ6	Excluded
9WF9VE	Excluded	MZQVUC	Excluded
C2K2LF	Excluded	N3D397	Excluded
C9YWFN	Excluded	NNXTQB	Excluded
CLMWAC	Excluded	NQKDWE	Excluded
CU3P9E	Excluded	P38936	Excluded
DK727G	Excluded	PTMRHB	Excluded
E4J4F9	Excluded	PUVRV6	Excluded
E4MLMK	Excluded	QHG8V9	Excluded
EMAGTD	Excluded	QTGXCB	Excluded
G3ZUNK	Excluded	RALNU7	Excluded
GC624K	Excluded	RF9CNB	Excluded
GZBRC6	Excluded	RG7PC4	Excluded
HH9CPJ	Excluded	RV32K8	Excluded
HM7NVG	Excluded	RVJ3J4	Excluded
HMHP93	Excluded	TERNJ2	Excluded

TABLE 6

WebCode	Conclusion	WebCode	Conclusion
TGZU63	Excluded		
U4R9H4	Excluded		
UHPKQ8	Excluded		
WRKETV	Excluded		
WRNXZ8	Excluded		
WYKRX6	Excluded		
X73RKV	Excluded		
XHDZK3	Excluded		
YF4CMN	Excluded		
YF7VTY	Excluded		
YH96E2	Excluded		
YM4PQX	Excluded		
YT9LAX	Excluded		
Z7CA3R	Excluded		

Response Summary		Total: 64
Responses	Not Excluded	0
	Excluded	64
	Inconclusive	0

Kinship Likelihood Ratio Results

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D1S1656	2JYZZZ	$(1+4r)/8r$	$r=17.3$	1.4398
	37K82T	$(1+4p)/8p$	$p=17.3$	1.440
	3ZXD92	$(1+4q)/8q$	$q = 17.3$	1.44
	73DQGU	$(1+4p)/8p$	$p=17.3$	1.44
	89XB2L	$(K1+2K0a)/2a$	$a=17.3$	1.439849624
	8WL32E	$1+4f(a)/8f(a)$	$a=17.3$	1.4398
	9B2GZR	$(1+4p)/8p$	$p=17.3$	1.4398
	9WF9VE	$(1/2)+(1/8p)$	$p=17.3$	1.44
	CLMWAC	$(1+4p)/8p$	$p=17.3$	1.4398
	E4J4F9	$(1+4p)/8p$	$p=17.3$	1.439849624
	EMAGTD	$(1+4p)/8p$	$p=17.3$	1.439
	G3ZUNK	$(1+4p)/8p$	$p=17.3$	1.4398
	GZBRC6	$(1+4p)/8p$	$p=17.3$	1.43985
	J2X7XK	$1+4p/8p$	$p=17.3$	1.44
	JTLPQK	$(1+4p)/8p$	$p=17.3$	1.4398
	KG24D2	$(1+4p)/8p$	$p=17.3$	1.4398
	LU8G88	$(1+4p)/8p$	$p = 17.3$	1.440
	MFKHZ6	$(1+4p)/8p$	$p=17.3$	1.439
	NQKDWE	$(1+4r)/8r$	$r=17.3$	1.4398
	PTMRHB	$(1+4p)/8p$	$p = 17.3$	1.4398
	RF9CNB	$(1+4p)/8p$	17.3	1.440
	TERNJ2	$(1+4p)/8p$	$p = 17.3$	1.44
	UHPKQ8	$(1+4p)/8p$	$p=17.3$	1.4398
	WRKETV	$(1+4p)/8p$	$p = 17.3$	1.440
	WYKRX6	$(1+4p)/8p$	$p=17.3$	1.4398
	XHDZK3	$(1+4p)/8p$	$p=17.3$	1.439

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D1S1656	YF4CMN	$(1+4p)/8p$	$p = 17.3$	1.439849624
	YH96E2	$(1+4p)/8p$	$p=17.3$	1.4398
	YM4PQX	$(1+4p)/8p$	$p=17.3$	1.4398

Statistical Analysis Summary of D1S1656

Likelihood Ratio (Grand Mean): **1.440**Number of participants included: **29**Standard Deviation: **0.0003**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D2S1338	2JYZZZ	1/2	-	0.5000
	37K82T	2/4		0.5
	3ZXD92	1/2		0.50
	73DQGU	k0		0.5
	89XB2L	K0		0.5
	8WL32E	1/2	-	0.5
	9B2GZR	2/4		0.5
	9WF9VE	1/2		0.5
	CLMWAC	1/2		0.5000
	E4J4F9	2/4		0.5
	EMAGTD	2/4		0.5
	G3ZUNK	1/2		0.50000
	GZBRC6	1/2		0.5
	J2X7XK	2/4	N/A	0.5
	JTLPQK	(2)/(4)		0.5
	KG24D2	1/2		0.5
	LU8G88	1/2		0.5
	MFKHZ6	1/2		0.5
	NQKDWE	1/2		0.500
	PTMRHB	1/2		0.5000
	RF9CNB	2/4	heterozygotes different	0.500
	TERNJ2	1/2	n/a	0.5
	UHPKQ8	1/2	-	0.5000
	WRKETV	2/4		0.5
	WYKRX6	1/2	-	0.5000
	XHDZK3	0.5		0.5
	YF4CMN	1/2	1/2	0.5

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D2S1338	YH96E2	2/4		0.5
	YM4PQX	1/2	N/A	0.5

Statistical Analysis Summary of D2S1338
Likelihood Ratio (Grand Mean): **0.500**Number of participants included: **29**Standard Deviation: **0.0000**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D2S441	2JYZZZ	$(1+4r)/8r$	$r=14$	1.0187
	37K82T	$(1+4p)/8p$	$p=14$	1.019
	3ZXD92	$(1+4r)/8r$	$r = 14$	1.02
	73DQGU	$(1+4p)/8p$	$p=14$	1.02
	89XB2L	$(K1+2K0a)/2a$	$a=14$	1.018672199
	8WL32E	$1+4f(a)/8f(a)$	$a=14$	1.0187
	9B2GZR	$(1+4p)/8p$	$p=14$	1.0187
	9WF9VE	$(1/2)+(1/8p)$	$p=14$	1.019
	CLMWAC	$(1+4p)/8p$	$p=14$	1.0187
	E4J4F9	$(1+4p)/8p$	$p=14$	1.018672199
	EMAGTD	$(1+4p)/8p$	$p=14$	1.0186
	G3ZUNK	$(1+4p)/8p$	$p=14$	1.0187
	GZBRC6	$(1+4p)/8p$	$p=14$	1.018672
	J2X7XK	$1+4p/8p$	$p=14$	1.019
	JTLPQK	$(1+4p)/8p$	$p=14$	1.0187
	KG24D2	$(1+4p)/8p$	$p=14$	1.0187
	LU8G88	$(1+4p)/8p$	$p = 14$	1.019
	MFKHZ6	$(1+4p)/8p$	$p=14$	1.018
	NQKDWE	$(1+4r)/8r$	$r=14$	1.0187
	PTMRHB	$(1+4q)/8q$	$q = 14$	1.0187
	RF9CNB	$(1+4p)/8p$	14	1.019
	TERNJ2	$(1+4q)/8q$	$q = 14$	1.02
	UHPKQ8	$(1+4p)/8p$	$p=14$	1.0187
	WRKETV	$(1+4p)/8p$	$p = 14$	1.019
	WYKRX6	$(1+4p)/8p$	$p=14$	1.0187
	XHDZK3	$(1+4p)/8p$	$p=14$	1.018
	YF4CMN	$(1+4p)/8p$	$p = 14$	1.018672199

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D2S441	YH96E2	(1+4p)/8p	p=14	1.0187
	YM4PQX	(1+4p)/8p	p=14	1.0187

Statistical Analysis Summary of D2S441

Likelihood Ratio (Grand Mean): **1.019**Number of participants included: **29**Standard Deviation: **0.0005**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D3S1358	2JYZZZ	1/2	-	0.5000
	37K82T	2/4		0.5
	3ZXD92	1/2		0.50
	73DQGU	k0		0.5
	89XB2L	K0		0.5
	8WL32E	1/2	-	0.5
	9B2GZR	2/4		0.5
	9WF9VE	1/2		0.5
	CLMWAC	1/2		0.5000
	E4J4F9	2/4		0.5
	EMAGTD	2/4		0.5
	G3ZUNK	1/2		0.500
	GZBRC6	1/2		0.5
	J2X7XK	2/4		N/A
	JTLPQK	(2)/(4)		0.5
	KG24D2	1/2		0.5
	LU8G88	1/2		0.5
	MFKHZ6	1/2		0.5
	NQKDWE	1/2		0.500
	PTMRHB	1/2		0.5000
	RF9CNB	2/4		heterozygotes different
	TERNJ2	1/2		n/a
	UHPKQ8	1/2		-
	WRKETV	2/4		0.5
	WYKRX6	1/2		-
	XHDZK3	0.5		0.5
YF4CMN	1/2		1/2	

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D3S1358	YH96E2	2/4		0.5
	YM4PQX	1/2	N/A	0.5

Statistical Analysis Summary of D3S1358Likelihood Ratio (Grand Mean): **0.500**Number of participants included: **29**Standard Deviation: **0.0000**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D5S818	2JYZZZ	$(1+2q)/4q$	$q=12$	1.1447
	37K82T	$(1+2p)/4p$	$p=12$	1.145
	3ZXD92	$(1+2q)/4q$	$q = 12$	1.14
	73DQGU	$1/4p+0.5$	$p=12$	1.14
	89XB2L	$(K1+K0a)/a$	$a=12$	1.144662197
	8WL32E	$1+2f(a)/4f(a)$	$a=12$	1.1447
	9B2GZR	$(1+2p)/4p$	$p=12$	1.1447
	9WF9VE	$(1/2)+(1/4p)$	$p=12$	1.145
	CLMWAC	$(1+2p)/4p$	$p=12$	1.1447
	E4J4F9	$(1+2p)/4p$	$p=12$	1.14466
	EMAGTD	$(1+2p)/4p$	$p=12$	1.145
	G3ZUNK	$(1+2p)/4p$	$p=12$	1.1447
	GZBRC6	$(2+4p)/8p$	$p=12$	1.144662
	J2X7XK	$1+2p/4p$	$p=12$	1.145
	JTLPQK	$(1+2p)/4p$	$p=12$	1.1447
	KG24D2	$(1+2q)/4q$	$q=12$	1.1447
	LU8G88	$(1+2p)/4p$	$p = 12$	1.145
	MFKHZ6	$(1+2p)/4p$	$p=12$	1.144
	NQKDWE	$(1+2q)/4q$	$q=12$	1.1447
	PTMRHB	$(1+2q)/4q$	$q = 12$	1.1447
	RF9CNB	$2p+1/4p$	12	1.145
	TERNJ2	$(1+2q)/4q$	$q = 12$	1.14
	UHPKQ8	$(1+2p)/4p$	$p=12$	1.1447
	WRKETV	$(1+2p)/4p$	$p = 12$	1.145
	WYKRX6	$(1+2p)/4p$	$p=12$	1.1447
	XHDZK3	$(1/4p)+0.5$	$p=12$	1.144
	YF4CMN	$(1+2p)/4p$	$p = 12$	1.144662197

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D5S818	YH96E2	(1+2p)/4p	p=12	1.1447
	YM4PQX	(1+2p)/4p	p=12	1.1447

Statistical Analysis Summary of D5S818
Likelihood Ratio (Grand Mean): **1.144**Number of participants included: **29**Standard Deviation: **0.0015**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D7S820	2JYZZZ	$(1+2p)/4p$	$p=9$	1.9916
	37K82T	$(1+2p)/4p$	$p=9$	1.992
	3ZXD92	$(1+2q)/4q$	$q = 9$	1.99
	73DQGU	$1/4p+0.5$	$p=9$	1.99
	89XB2L	$(K1+K0a)/a$	$a=9$	1.991646778
	8WL32E	$1+2f(a)/4f(a)$	$a=9$	1.9916
	9B2GZR	$(1+2p)/4p$	$p=9$	1.9916
	9WF9VE	$(1/2)+(1/4p)$	$p=9$	1.992
	CLMWAC	$(1+2p)/4p$	$p=9$	1.9916
	E4J4F9	$(1+2p)/4p$	$p=9$	2.06432
	EMAGTD	$(1+2p)/4p$	$p=9$	1.992
	G3ZUNK	$(1+2p)/4p$	$p=9$	1.9916
	GZBRC6	$(2+4p)/8p$	$p=9$	1.991647
	J2X7XK	$1+2p/4p$	$p=9$	1.992
	JTLPQK	$(1+2p)/4p$	$p=9$	1.9916
	KG24D2	$(1+2p)/4p$	$p=9$	1.9916
	LU8G88	$(1+2p)/4p$	$p = 9$	1.992
	MFKHZ6	$(1+2p)/4p$	$p=9$	1.991
	NQKDWE	$(1+2p)/4p$	$p=9$	1.9916
	PTMRHB	$(1+2p)/4p$	$p = 9$	1.9916
	RF9CNB	$2p+1/4p$	9	1.992
	TERNJ2	$(1+2p)/4p$	$p = 9$	1.99
	UHPKQ8	$(1+2p)/4p$	$p=9$	1.9916
	WRKETV	$(1+2p)/4p$	$p = 9$	1.992
	WYKRX6	$(1+2p)/4p$	$p=9$	1.9916
	XHDZK3	$(1/4p)+0.5$	$p=9$	1.991
	YF4CMN	$(1+2p)/4p$	$p = 9$	1.991646778

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D7S820	YH96E2	$(1+2p)/4p$	p=9	1.9916
	YM4PQX	$(1+2p)/4p$	p=9	1.9916

Statistical Analysis Summary of D7S820
Likelihood Ratio (Grand Mean): **1.991**Number of participants included: **28**Standard Deviation: **0.0006**Number of participants excluded: **1**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D8S1179	2JYZZZ	$(1+4r)/8r$	$r=15$	1.7031
	37K82T	$(1+4p)/8p$	$p=15$	1.703
	3ZXD92	$(1+4r)/8r$	$r = 15$	1.70
	73DQGU	$(1+4p)/8p$	$p=15$	1.7
	89XB2L	$(K1+2K0a)/2a$	$a=15$	1.703079885
	8WL32E	$1+4f(a)/8f(a)$	$a=15$	1.7031
	9B2GZR	$(1+4p)/8p$	$p=15$	1.7031
	9WF9VE	$(1/2)+(1/8p)$	$p=15$	1.703
	CLMWAC	$(1+4p)/8p$	$p=15$	1.7031
	E4J4F9	$(1+4p)/8p$	$p=15$	1.70308
	EMAGTD	$(1+4p)/8p$	$p=15$	1.703
	G3ZUNK	$(1+4p)/8p$	$p=15$	1.7031
	GZBRC6	$(1+4p)/8p$	$p=15$	1.70308
	J2X7XK	$1+4p/8p$	$p=15$	1.703
	JTLPQK	$(1+4p)/8p$	$p=15$	1.7031
	KG24D2	$(1+4q)/8q$	$q=15$	1.7013
	LU8G88	$(1+4p)/8p$	$p = 15$	1.703
	MFKHZ6	$(1+4p)/8p$	$p=15$	1.703
	NQKDWE	$(1+4r)/8r$	$r=15$	1.7031
	PTMRHB	$(1+4q)/8q$	$q = 15$	1.7031
	RF9CNB	$(1+4p)/8p$	15	1.703
	TERNJ2	$(1+4q)/8q$	$q = 15$	1.70
	UHPKQ8	$(1+4p)/8p$	$p=15$	1.7031
	WRKETV	$(1+4p)/8p$	$p = 15$	1.703
	WYKRX6	$(1+4p)/8p$	$p=15$	1.7031
	XHDZK3	$(1+4p)/8p$	$p=15$	1.703
	YF4CMN	$(1+4p)/8p$	$p = 15$	1.703079885

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D8S1179	YH96E2	(1+4p)/8p	p=15	1.7031
	YM4PQX	(1+4p)/8p	p=15	1.7031

Statistical Analysis Summary of D8S1179
Likelihood Ratio (Grand Mean): **1.703**Number of participants included: **29**Standard Deviation: **0.0010**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D10S1248	2JYZZZ	$(1+2q)/4q$	$q=15$	1.7710
	37K82T	$(1+2p)/4p$	$p=15$	1.771
	3ZXD92	$(1+2p)/4p$	$p = 15$	1.77
	73DQGU	$1/4p+0.5$	$p=15$	1.77
	89XB2L	$(K1+K0a)/a$	$a=15$	1.770971022
	8WL32E	$1+2f(a)/4f(a)$	$a=15$	1.7710
	9B2GZR	$(1+2p)/4p$	$p=15$	1.7710
	9WF9VE	$(1/2)+(1/4p)$	$p=15$	1.771
	CLMWAC	$(1+2p)/4p$	$p=15$	1.7710
	E4J4F9	$(1+2p)/4p$	$p=15$	1.77097
	EMAGTD	$(1+2p)/4p$	$p=15$	1.771
	G3ZUNK	$(1+2p)/4p$	$p=15$	1.7710
	GZBRC6	$(2+4p)/8p$	$p=15$	1.770971
	J2X7XK	$1+2p/4p$	$p=15$	1.771
	JTLPQK	$(1+2p)/4p$	$p=15$	1.7710
	KG24D2	$(1+2p)/4p$	$p=15$	1.7710
	LU8G88	$(1+2p)/4p$	$p = 15$	1.771
	MFKHZ6	$(1+2p)/4p$	$p=15$	1.770
	NQKDWE	$(1+2q)/4q$	$q=15$	1.7710
	PTMRHB	$(1+2p)/4p$	$p = 15$	1.7710
	RF9CNB	$2p+1/4p$	15	1.771
	TERNJ2	$(1+2p)/4p$	$p = 15$	1.77
	UHPKQ8	$(1+2p)/4p$	$p=15$	1.7710
	WRKETV	$(1+2p)/4p$	$p = 15$	1.771
	WYKRX6	$(1+2p)/4p$	$p=15$	1.7710
	XHDZK3	$(1/4p)+0.5$	$p=15$	1.770
	YF4CMN	$(1+2p)/4p$	$p = 15$	1.770971022

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D10S1248	YH96E2	$(1+2p)/4p$	p=15	1.7710
	YM4PQX	$(1+2p)/4p$	p=15	1.7710

Statistical Analysis Summary of D10S1248
Likelihood Ratio (Grand Mean): **1.771**Number of participants included: **29**Standard Deviation: **0.0004**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D12S391	2JYZZZ	$(1+2q)/4q$	$q=18$	1.9560
	37K82T	$(1+2p)/4p$	$p=18$	1.956
	3ZXD92	$(1+2p)/4p$	$p = 18$	1.96
	73DQGU	$1/4p+0.5$	$p=18$	1.95
	89XB2L	$(K1+K0a)/a$	$a=18$	1.956027956
	8WL32E	$1+2f(a)/4f(a)$	$a=18$	1.9560
	9B2GZR	$(1+2p)/4p$	$p=18$	1.9560
	9WF9VE	$(1/2)+(1/4p)$	$p=18$	1.956
	CLMWAC	$(1+2p)/4p$	$p=18$	1.9560
	E4J4F9	$(1+2p)/4p$	$p=18$	1.95603
	EMAGTD	$(1+2p)/4p$	$p=18$	1.956
	G3ZUNK	$(1+2p)/4p$	$p=18$	1.9560
	GZBRC6	$(2+4p)/8p$	$p=18$	1.956028
	J2X7XK	$1+2p/4p$	$p=18$	1.956
	JTLPQK	$(1+2p)/4p$	$p=18$	1.9560
	KG24D2	$(1+2p)/4p$	$p=17.3$	1.9560
	LU8G88	$(1+2p)/4p$	$p = 18$	1.956
	MFKHZ6	$(1+2p)/4p$	$p=18$	1.956
	NQKDWE	$(1+2q)/4q$	$q=18$	1.9560
	PTMRHB	$(1+2p)/4p$	$p = 18$	1.9560
	RF9CNB	$2p+1/4p$	18	1.956
	TERNJ2	$(1+2p)/4p$	$p = 18$	1.96
	UHPKQ8	$(1+2p)/4p$	$p=18$	1.9560
	WRKETV	$(1+2p)/4p$	$p = 18$	1.956
	WYKRX6	$(1+2p)/4p$	$p=18$	1.9560
	XHDZK3	$(1/4p)+0.5$	$p=18$	1.956
	YF4CMN	$(1+2p)/4p$	$p = 18$	1.956027956

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D12S391	YH96E2	(1+2p)/4p	p=18	1.9560
	YM4PQX	(1+2p)/4p	p=18	1.9560

Statistical Analysis Summary of D12S391
Likelihood Ratio (Grand Mean): **1.956**Number of participants included: **29**Standard Deviation: **0.0016**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D13S317	2JYZZZ	$(1+4p)/8p$	$p=11$	0.8840
	37K82T	$(1+4p)/8p$	$p=11$	0.884
	3ZXD92	$(1+4p)/8p$	$p = 11$	0.88
	73DQGU	$(1+4p)/8p$	$p=11$	0.88
	89XB2L	$(K1+2K0a)/2a$	$a=11$	0.884024578
	8WL32E	$1+4f(a)/8f(a)$	$a=11$	0.8840
	9B2GZR	$(1+4p)/8p$	$p=11$	0.8840
	9WF9VE	$(1/2)+(1/8p)$	$p=11$	0.884
	CLMWAC	$(1+4p)/8p$	$p=11$	0.8840
	E4J4F9	$(1+4p)/8p$	$p=11$	0.88402
	EMAGTD	$(1+4p)/8p$	$p=11$	0.884
	G3ZUNK	$(1+4p)/8p$	$p=11$	0.8840
	GZBRC6	$(1+4p)/8p$	$p=11$	0.884025
	J2X7XK	$1+4p/8p$	$p=11$	0.884
	JTLPQK	$(1+4p)/8p$	$p=11$	0.8840
	KG24D2	$(1+4p)/8p$	$p=11$	0.8840
	LU8G88	$(1+4p)/8p$	$p = 11$	0.884
	MFKHZ6	$(1+4p)/8p$	$p=11$	0.884
	NQKDWE	$(1+4p)/8p$	$p=11$	0.8840
	PTMRHB	$(1+4p)/8p$	$p = 11$	0.8840
	RF9CNB	$(1+4p)/8p$	11	0.884
	TERNJ2	$(1+4p)/8p$	$p = 11$	0.884
	UHPKQ8	$(1+4p)/8p$	$p=11$	0.8840
	WRKETV	$(1+4p)/8p$	$p = 11$	0.884
	WYKRX6	$(1+4p)/8p$	$p=11$	0.8840
	XHDZK3	$(1+4p)/8p$	$p=11$	0.884
	YF4CMN	$(1+4p)/8p$	$p = 11$	0.884024578

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D13S317	YH96E2	(1+4p)/8p	p=11	0.8840
	YM4PQX	(1+4p)/8p	p=11	0.88402

Statistical Analysis Summary of D13S317
Likelihood Ratio (Grand Mean): **0.884**Number of participants included: **29**Standard Deviation: **0.0010**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D16S539	2JYZZZ	$(1+4s)/8s$	$s=12$	0.8976
	37K82T	$(1+4p)/8p$	$p=12$	0.898
	3ZXD92	$(1+4q)/8q$	$q = 12$	0.90
	73DQGU	$(1+4p)/8p$	$p=12$	0.89
	89XB2L	$(K1+2K0a)/2a$	$a=12$	0.897582697
	8WL32E	$1+4f(a)/8f(a)$	$a=12$	0.8976
	9B2GZR	$(1+4p)/8p$	$p=12$	0.8976
	9WF9VE	$(1/2)+(1/8p)$	$p=12$	0.898
	CLMWAC	$(1+4p)/8p$	$p=12$	0.8976
	E4J4F9	$(1+4p)/8p$	$p=12$	0.89758
	EMAGTD	$(1+4p)/8p$	$p=12$	0.897
	G3ZUNK	$(1+4p)/8p$	$p=12$	0.8976
	GZBRC6	$(1+4p)/8p$	$p=12$	0.897583
	J2X7XK	$1+4p/8p$	$p=12$	0.898
	JTLPQK	$(1+4p)/8p$	$p=12$	0.8976
	KG24D2	$(1+4q)/8q$	$q=12$	0.8976
	LU8G88	$(1+4p)/8p$	$p = 12$	0.898
	MFKHZ6	$(1+4p)/8p$	$p=12$	0.897
	NQKDWE	$(1+4s)/8s$	$s=12$	0.8976
	PTMRHB	$(1+4q)/8q$	$q = 12$	0.8976
	RF9CNB	$(1+4p)/8p$	12	0.898
	TERNJ2	$(1+4q)8q$	$q = 12$	0.898
	UHPKQ8	$(1+4p)/8p$	$p=12$	0.8976
	WRKETV	$(1+4p)/8p$	$p = 12$	0.898
	WYKRX6	$(1+4p)/8p$	$p=12$	0.8976
	XHDZK3	$(1+4p)/8p$	$p=12$	0.897
	YF4CMN	$(1+4p)/8p$	$p = 12$	0.897582697

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D16S539	YH96E2	(1+4p)/8p	p=12	0.8976
	YM4PQX	(1+4p)/8p	p=12	0.89758

Statistical Analysis Summary of D16S539

Likelihood Ratio (Grand Mean): **0.897**Number of participants included: **29**Standard Deviation: **0.0015**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D18S51	2JYZZZ	$(1+4p)/8p$	$p=15$	1.2336
	37K82T	$(1+4p)/8p$	$p=15$	1.234
	3ZXD92	$(1+4p)/8p$	$p = 15$	1.23
	73DQGU	$(1+4p)/8p$	$p=15$	1.23
	89XB2L	$(K1+2K0a)/2a$	$a=15$	1.233568075
	8WL32E	$1+4f(a)/8f(a)$	$a=15$	1.2336
	9B2GZR	$(1+4p)/8p$	$p=15$	1.2336
	9WF9VE	$(1/2)+(1/8p)$	$p=15$	1.234
	CLMWAC	$(1+4p)/8p$	$p=15$	1.2336
	E4J4F9	$(1+4p)/8p$	$p=15$	1.23357
	EMAGTD	$(1+4p)/8p$	$p=15$	1.233
	G3ZUNK	$(1+4p)/8p$	$p=15$	1.2336
	GZBRC6	$(1+4p)/8p$	$p=15$	1.233568
	J2X7XK	$1+4p/8p$	$p=15$	1.234
	JTLPQK	$(1+4p)/8p$	$p=15$	1.2336
	KG24D2	$(1+4p)/8p$	$p=15$	1.2336
	LU8G88	$(1+4p)/8p$	$p = 15$	1.234
	MFKHZ6	$(1+4p)/8p$	$p=15$	1.233
	NQKDWE	$(1+4p)/8p$	$p=15$	1.2336
	PTMRHB	$(1+4p)/8p$	$p = 15$	1.2336
	RF9CNB	$(1+4p)/8p$	15	1.234
	TERNJ2	$(1+4p)/8p$	$p = 15$	1.23
	UHPKQ8	$(1+4p)/8p$	$p=15$	1.2336
	WRKETV	$(1+4p)/8p$	$p = 15$	1.234
	WYKRX6	$(1+4p)/8p$	$p=15$	1.2336
	XHDZK3	$(1+4p)/8p$	$p=15$	1.233
	YF4CMN	$(1+4p)/8p$	$p = 15$	1.233568075

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D18S51	YH96E2	(1+4p)/8p	p=15	1.2336
	YM4PQX	(1+4p)/8p	p=15	1.2336

Statistical Analysis Summary of D18S51

Likelihood Ratio (Grand Mean): **1.233**Number of participants included: **29**Standard Deviation: **0.0012**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D19S433	2JYZZZ	$(1+4q)/8q$	$q=13$	0.9906
	37K82T	$(1+4p)/8p$	$p=13$	0.991
	3ZXD92	$(1+4q)/8q$	$q = 13$	0.99
	73DQGU	$(1+4p)/8p$	$p=13$	0.99
	89XB2L	$(K1+2K0a)/2a$	$a=13$	0.990580848
	8WL32E	$1+4f(a)/8f(a)$	$a=13$	0.9906
	9B2GZR	$(1+4p)/8p$	$p=13$	0.9906
	9WF9VE	$(1/2)+(1/8p)$	$p=13$	0.991
	CLMWAC	$(1+4p)/8p$	$p=13$	0.9906
	E4J4F9	$(1+4p)/8p$	$p=13$	0.99058
	EMAGTD	$(1+4p)/8p$	$p=13$	0.990
	G3ZUNK	$(1+4p)/8p$	$p=13$	0.9906
	GZBRC6	$(1+4p)/8p$	$p=13$	0.990581
	J2X7XK	$1+4p/8p$	$p=13$	0.991
	JTLPQK	$(1+4p)/8p$	$p=13$	0.9906
	KG24D2	$(1+4q)/8q$	$q=13$	0.9906
	LU8G88	$(1+4p)/8p$	$p = 13$	0.991
	MFKHZ6	$(1+4p)/8p$	$p=13$	0.990
	NQKDWE	$(1+4q)/8q$	$q=13$	0.9906
	PTMRHB	$(1+4q)/8q$	$q = 13$	0.9906
	RF9CNB	$(1+4p)/8p$	13	0.991
	TERNJ2	$(1+4q)/8q$	$q = 13$	0.984
	UHPKQ8	$(1+4p)/8p$	$p=13$	0.9906
	WRKETV	$(1+4p)/8p$	$p = 13$	0.991
	WYKRX6	$(1+4p)/8p$	$p=13$	0.9906
	XHDZK3	$(1+4p)/8p$	$p=13$	0.990
	YF4CMN	$(1+4p)/8p$	$p = 13$	0.990580848

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D19S433	YH96E2	(1+4p)/8p	p=13	0.9906
	YM4PQX	(1+4p)/8p	p=13	0.99058

Statistical Analysis Summary of D19S433

Likelihood Ratio (Grand Mean): **0.991**Number of participants included: **28**Standard Deviation: **0.0003**Number of participants excluded: **1**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D21S11	2JYZZZ	1/2	-	0.5000
	37K82T	2/4		0.5
	3ZXD92	1/2		0.50
	73DQGU	k0		0.5
	89XB2L	K0		0.5
	8WL32E	1/2	-	0.5
	9B2GZR	2/4		0.5
	9WF9VE	1/2		0.5
	CLMWAC	1/2		0.5000
	E4J4F9	2/4		0.5
	EMAGTD	2/4		0.5
	G3ZUNK	1/2		0.5000
	GZBRC6	1/2		0.5
	J2X7XK	2/4	N/A	0.5
	JTLPQK	(2)/(4)		0.5
	KG24D2	1/2		0.5
	LU8G88	1/2		0.5
	MFKHZ6	1/2		0.5
	NQKDWE	1/2		0.500
	PTMRHB	1/2		0.5000
	RF9CNB	2/4	heterozygotes different	0.500
	TERNJ2	1/2	n/a	0.5
	UHPKQ8	1/2	-	0.5000
	WRKETV	2/4		0.5
	WYKRX6	1/2	--	0.5000
	XHDZK3	0.5		0.5
	YF4CMN	1/2	1/2	0.5

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D21S11	YH96E2	2/4		0.5
	YM4PQX	1/2	N/A	0.5

Statistical Analysis Summary of D21S11
Likelihood Ratio (Grand Mean): **0.500**Number of participants included: **29**Standard Deviation: **0.0000**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D22S1045	2JYZZZ	$(1+2q)/4q$	$q=16$	1.1539
	37K82T	$(1+2p)/4p$	$p=16$	1.154
	3ZXD92	$(1+2q)/4q$	$q = 16$	1.15
	73DQGU	$1/4p+0.5$	$p=16$	1.15
	89XB2L	$(K1+K0a)/a$	$a=16$	1.153936699
	8WL32E	$1+2f(a)/4f(a)$	$a=16$	1.1539
	9B2GZR	$(1+2p)/4p$	$p=16$	1.1539
	9WF9VE	$(1/2)+(1/4p)$	$p=16$	1.154
	CLMWAC	$(1+2p)/4p$	$p=16$	1.1539
	E4J4F9	$(1+2p)/4p$	$p=16$	1.15394
	EMAGTD	$(1+2p)/4p$	$p=16$	1.154
	G3ZUNK	$(1+2p)/4p$	$p=16$	1.1539
	GZBRC6	$(2+4p)/8p$	$p=16$	1.153937
	J2X7XK	$1+2p/4p$	$p=16$	1.154
	JTLPQK	$(1+2p)/4p$	$p=16$	1.1539
	KG24D2	$(1+2p)/4p$	$p=16$	1.1539
	LU8G88	$(1+2p)/4p$	$p = 16$	1.154
	MFKHZ6	$(1+2p)/4p$	$p=16$	1.153
	NQKDWE	$(1+2q)/4q$	$q=16$	1.1539
	PTMRHB	$(1+2p)/4p$	$p = 16$	1.1539
	RF9CNB	$2p+1/4p$	16	1.154
	TERNJ2	$(1+2p)/4p$	$p = 16$	1.15
	UHPKQ8	$(1+2p)/4p$	$p=16$	1.1539
	WRKETV	$(1+2p)/4p$	$p = 16$	1.154
	WYKRX6	$(1+2p)/4p$	$p=16$	1.1539
	XHDZK3	$(1/4p)+0.5$	$p=16$	1.153
	YF4CMN	$(1+2p)/4p$	$p = 16$	1.153936699

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D22S1045	YH96E2	(1+2p)/4p	p=16	1.1539
	YM4PQX	(1+2p)/4p	p=16	1.1539

Statistical Analysis Summary of D22S1045
Likelihood Ratio (Grand Mean): **1.153**Number of participants included: **29**Standard Deviation: **0.0012**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio	
Amelogenin	2JYZZZ				
	37K82T				
	3ZXD92				
	73DQGU				
	89XB2L				
	8WL32E				
	9B2GZR				
	9WF9VE				
	CLMWAC				
	E4J4F9				
	EMAGTD				
	G3ZUNK				
	GZBRC6				
	J2X7XK	N/A		N/A	
	JTLPQK				
	KG24D2				
	LU8G88				
	MFKHZ6				
	NQKDWE				
	PTMRHB				
	RF9CNB				
	TERNJ2	--			1.00
	UHPKQ8				
	WRKETV				
	WYKRX6				
	XHDZK3				
	YF4CMN	Notincluded			

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
Amelogenin	YH96E2			
	YM4PQX	N/A	N/A	

Statistical Analysis Summary of Amelogenin

Standard Deviation:

Number of participants included:

Number of participants excluded:

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
CSF1PO	2JYZZZ	$(1+4q)/8q$	$q=11$	0.9047
	37K82T	$(1+4p)/8p$	$p=11$	0.905
	3ZXD92	$(1+4q)/8q$	$q = 11$	0.90
	73DQGU	$(1+4p)/8p$	$p=11$	0.9
	89XB2L	$(K1+2K0a)/2a$	$a=11$	0.904661703
	8WL32E	$1+4f(a)/8f(a)$	$a=11$	0.9047
	9B2GZR	$(1+4p)/8p$	$p=11$	0.9047
	9WF9VE	$(1/2)+(1/8p)$	$p=11$	0.905
	CLMWAC	$(1+4p)/8p$	$p=11$	0.9047
	E4J4F9	$(1+4p)/8p$	$p=11$	0.90466
	EMAGTD	$(1+4p)/8p$	$p=11$	0.905
	G3ZUNK	$(1+4p)/8p$	$p=11$	0.9047
	GZBRC6	$(1+4p)/8p$	$p=11$	0.904662
	J2X7XK	$1+4p/8p$	$p=11$	0.905
	JTLPQK	$(1+4p)/8p$	$p=11$	0.9047
	KG24D2	$(1+4p)/8p$	$p=11$	0.9047
	LU8G88	$(1+4p)/8p$	$p = 11$	0.905
	MFKHZ6	$(1+4p)/8p$	$p=11$	0.904
	NQKDWE	$(1+4q)/8q$	$q=11$	0.9047
	PTMRHB	$(1+4p)/8p$	$p = 11$	0.9047
	RF9CNB	$(1+4p)/8p$	11	0.905
	TERNJ2	$(1+4p)/8p$	$p = 11$	0.905
	UHPKQ8	$(1+4p)/8p$	$p=11$	0.9047
	WRKETV	$(1+4p)/8p$	$p = 11$	0.905
	WYKRX6	$(1+4p)/8p$	$p=11$	0.9047
	XHDZK3	$(1+4p)/8p$	$p=11$	0.904
YF4CMN	$(1+4p)/8p$	$p = 11$	0.904661703	

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
CSF1PO	YH96E2	(1+4p)/8p	p=11	0.9047
	YM4PQX	(1+4p)/8p	p=11	0.90466

Statistical Analysis Summary of CSF1PO

Likelihood Ratio (Grand Mean): **0.904**Number of participants included: **29**Standard Deviation: **0.0012**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
FGA	2JYZZZ	$(p+s+4ps)/8ps$	$p=22, s=25$	2.6940
	37K82T	$(p+q+4pq)/8pq$	$p=22, q=25$	2.694
	3ZXD92	$(p+q+4pq)/8pq$	$p = 22, q = 25$	2.69
	73DQGU	$(p+q+4pq)/8pq$	$p=22, q=25$	2.69
	89XB2L	$(K1a+K1b+K02ab)/2ab$	$a=22, b=25$	2.694040001
	8WL32E	$f(a)+f(b)+4f(a)f(b)/8f(a)f(b)$	$a=22,b=25$	2.6940
	9B2GZR	$(p+q+4pq)/8pq$	$p=22, q=25$	2.6940
	9WF9VE	$(1/2)+(1/8p)+(1/8q)$	$p=22,q=25$	2.694
	CLMWAC	$(p+q+4pq)/8pq$	$p= 22, q= 25$	2.6940
	E4J4F9	$(p+q+4pq)/8pq$	$p=22, q=25$	2.69404
	EMAGTD	$(p+q+4pq)/8pq$	$p=22, q=25$	2.694
	G3ZUNK	$(p+q+4pq)/8pq$	$p=22, q=25$	2.6940
	GZBRC6	$(p+q+4pq)/8pq$	$p=22, q=25$	2.69404
	J2X7XK	$p+q+4pq/8pq$	$p=22, q=25$	2.694
	JTLPQK	$(1+2p)/4p$	$p=22, q=25$	2.6940
	KG24D2	$(p+q+4pq)/8pq$	$p=22, q=25$	2.6940
	LU8G88	$(p+q+4pq)/8pq$	$p = 22, q = 25$	2.694
	MFKHZ6	$(p+q+4pq)/8pq$	$p=22, q=25$	2.694
	NQKDWE	$(p+s+4ps)/8ps$	$p=22, s=25$	2.6940
	PTMRHB	$(p+q+4pq)/8pq$	$p = 22, q = 25$	2.6940
	RF9CNB	$(p+q+4pq)/8pq$	$p 22, q 25$	2.694
	TERNJ2	$(p+q+4pq)/8pq$	$p = 22, q = 25$	2.69
	UHPKQ8	$(p+q+4pq)/8pq$	$p=22, q=25$	2.6940
	WRKETV	$(p+q+4pq)/8pq$	$p = 22, q = 25$	2.694
	WYKRX6	$(p+q+4pq)/8pq$	$p=22,q=25$	2.6940
	XHDZK3	$(p+q+4pq)/8pq$	$p=22; q=25$	2.694
	YF4CMN	$(p+q+4pq)/8pq$	$p = 22, q = 25$	2.694040001

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
FGA	YH96E2	$(p+q+4pq)/8pq$	p=22, q=25	2.6940
	YM4PQX	$(p+q+4pq)/8pq$	p=22, q=25	2.6940

Statistical Analysis Summary of FGA

Likelihood Ratio (Grand Mean): **2.694**Number of participants included: **29**Standard Deviation: **0.0012**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
PentaD	2JYZZZ	1/2	-	0.5000
	37K82T	2/4		0.5
	3ZXD92	1/2		0.50
	73DQGU	k0		0.5
	89XB2L	K0		0.5
	8WL32E	1/2	-	0.5
	9B2GZR	2/4		0.5
	9WF9VE	1/2		0.5
	CLMWAC	1/2		0.5000
	E4J4F9	2/4		0.5
	EMAGTD	2/4		0.5
	G3ZUNK	1/2		0.5000
	GZBRC6	1/2		0.5
	J2X7XK	2/4		N/A
	JTLPQK	(2)/(4)		0.5
	KG24D2	1/2		0.5
	LU8G88	1/2		0.5
	MFKHZ6	1/2		0.5
	NQKDWE	1/2		0.500
	PTMRHB	1/2		0.5000
	RF9CNB	2/4		heterozygotes different
	TERNJ2	1/2		n/a
	UHPKQ8	1/2		-
	WRKETV	2/4		0.5
	WYKRX6	1/2		-
	XHDZK3	0.5		0.5
YF4CMN	1/2		1/2	

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
PentaD	YH96E2	2/4		0.5
	YM4PQX	1/2	N/A	0.5

Statistical Analysis Summary of PentaD

Likelihood Ratio (Grand Mean): **0.500**Number of participants included: **29**Standard Deviation: **0.0000**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
PentaE	2JYZZZ	$(1+4r)/8r$	$r=11$	1.9318
	37K82T	$(1+4p)/8p$	$p=11$	1.932
	3ZXD92	$(1+4p)/8p$	$p = 11$	1.93
	73DQGU	$(1+4p)/8p$	$p=11$	1.93
	89XB2L	$(K1+2K0a)/2a$	$a=11$	1.931844215
	8WL32E	$1+4f(a)/8f(a)$	$a=11$	1.9318
	9B2GZR	$(1+4p)/8p$	$p=11$	1.9318
	9WF9VE	$(1/2)+(1/8p)$	$p=11$	1.932
	CLMWAC	$(1+4p)/8p$	$p=11$	1.9318
	E4J4F9	$(1+4p)/8p$	$p=11$	1.93184
	EMAGTD	$(1+4p)/8p$	$p=11$	1.932
	G3ZUNK	$(1+4p)/8p$	$p=11$	1.9318
	GZBRC6	$(1+4p)/8p$	$p=11$	1.931844
	J2X7XK	$1+4p/8p$	$p=11$	1.932
	JTLPQK	$(1+4p)/8p$	$p=11$	1.9318
	KG24D2	$(1+4p)/8p$	$p=11$	1.9318
	LU8G88	$(1+4p)/8p$	$p = 11$	1.932
	MFKHZ6	$(1+4p)/8p$	$p=11$	1.931
	NQKDWE	$(1+4r)/8r$	$r=11$	1.9318
	PTMRHB	$(1+4p)/8p$	$p = 11$	1.9318
	RF9CNB	$(1+4p)/8p$	11	1.932
	TERNJ2	$(1+4p)/8p$	$p = 11$	1.93
	UHPKQ8	$(1+4p)/8p$	$p=11$	1.9318
	WRKETV	$(1+4p)/8p$	$p = 11$	1.932
	WYKRX6	$(1+4p)/8p$	$p=11$	1.9318
	XHDZK3	$(1+4p)/8p$	$p=11$	1.931
YF4CMN	$(1+4p)/8p$	$p = 11$	1.931844215	

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
PentaE	YH96E2	(1+4p)/8p	p=11	1.9318
	YM4PQX	(1+4p)/8p	p=11	1.9318

Statistical Analysis Summary of PentaE

Likelihood Ratio (Grand Mean): **1.932**Number of participants included: **29**Standard Deviation: **0.0006**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
SE33	2JYZZZ	$(1+4r)/8r$	$r=14.2$	45.1429
	37K82T	$(1+4p)/8p$	$p=14.2$	45.143
	3ZXD92	$(1+4p)/8p$	$p = 14.2$	45.14
	73DQGU	$(1+4p)/8p$	$p=14.2$	45.14
	89XB2L	$(K1+2K0a)/2a$	$a=14.2$	45.14285714
	8WL32E	$1+4f(a)/8f(a)$	$a=14.2$	45.1429
	9B2GZR	$(1+4p)/8p$	$p=14.2$	45.1429
	9WF9VE	$(1/2)+(1/8p)$	$p=14.2$	45.143
	CLMWAC	$(1+4p)/8p$	$p=14.2$	45.1429
	E4J4F9	$(1+4p)/8p$	$p=14.2$	45.14286
	EMAGTD	$(1+4p)/8p$	$p=14.2$	45.143
	G3ZUNK	$(1+4p)/8p$	$p=14.2$	45.1429
	GZBRC6	$(1+4p)/8p$	$p=14.2$	45.142857
	J2X7XK	$1+4p/8p$	$p=14.2$	45.143
	JTLPQK	$(1+4p)/8p$	$p=14.2$	45.1429
	KG24D2	$(1+4p)/8p$	$p=14.2$	45.1429
	LU8G88	$(1+4p)/8p$	$p = 14.2$	45.143
	MFKHZ6	$(1+4p)/8p$	$p=14.2$	45.142
	NQKDWE	$(1+4r)/8r$	$r=14.2$	45.1429
	PTMRHB	$(1+4p)/8p$	$p = 14.2$	45.1429
	RF9CNB	$(1+4p)/8p$	14.2	45.143
	TERNJ2	$(1+4p)/8p$	$p = 14.2$	45.1
	UHPKQ8	$(1+4p)/8p$	$p=14.2$	45.1429
	WRKETV	$(1+4p)/8p$	$p = 14.2$	45.143
	WYKRX6	$(1+4p)/8p$	$p=14.2$	45.1429
	XHDZK3	$(1+4p)/8p$	$p=14.2$	45.142
	YF4CMN	$(1+4p)/8p$	$p = 14.2$	45.14285714

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
SE33	YH96E2	(1+4p/8p)	p=14.2	45.1429
	YM4PQX	(1+4p)/8p	p=14.2	45.143

Statistical Analysis Summary of SE33

Likelihood Ratio (Grand Mean): **45.141**Number of participants included: **29**Standard Deviation: **0.0080**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
TH01	2JYZZZ	$(1+4p)/8p$	$p=6$	1.0308
	37K82T	$(1+4p)/8p$	$p=6$	1.031
	3ZXD92	$(1+4p)/8p$	$p = 6$	1.03
	73DQGU	$(1+4p)/8p$	$p=6$	1.03
	89XB2L	$(K1+2K0a)/2a$	$a=6$	1.030785563
	8WL32E	$1+4f(a)/8f(a)$	$a=6$	1.0308
	9B2GZR	$(1+4p)/8p$	$p=6$	1.0308
	9WF9VE	$(1/2)+(1/8p)$	$p=6$	1.031
	CLMWAC	$(1+4p)/8p$	$p=6$	1.0308
	E4J4F9	$(1+4p)/8p$	$p=6$	1.03079
	EMAGTD	$(1+4p)/8p$	$p=6$	1.031
	G3ZUNK	$(1+4p)/8p$	$p=6$	1.0308
	GZBRC6	$(1+4p)/8p$	$p=6$	1.030786
	J2X7XK	$1+4p/8p$	$p=6$	1.031
	JTLPQK	$(1+4p)/8p$	$p=6$	1.0308
	KG24D2	$(1+4p)/8p$	$p=6$	1.0308
	LU8G88	$(1+4p)/8p$	$p = 6$	1.031
	MFKHZ6	$(1+4p)/8p$	$p=6$	1.030
	NQKDWE	$(1+4p)/8p$	$p=6$	1.0308
	PTMRHB	$(1+4p)/8p$	$p = 6$	1.0308
	RF9CNB	$(1+4p)/8p$	6	1.031
	TERNJ2	$(1+4p)/8p$	$p = 6$	1.03
	UHPKQ8	$(1+4p)/8p$	$p=6$	1.0308
	WRKETV	$(1+4p)/8p$	$p = 6$	1.031
	WYKRX6	$(1+4p)/8p$	$p=6$	1.0308
	XHDZK3	$(1+4p)/8p$	$p=6$	1.030
	YF4CMN	$(1+4p)/8p$	$p = 6$	1.030785563

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
TH01	YH96E2	(1+4p)/8p	p=6	1.0308
	YM4PQX	(1+4p)/8p	p=6	1.0308

Statistical Analysis Summary of TH01

Likelihood Ratio (Grand Mean): **1.031**Number of participants included: **29**Standard Deviation: **0.0003**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
TPOX	2JYZZZ	$(p+s+4ps)/8ps$	$p=8, s=11$	1.2340
	37K82T	$(p+q+4pq)/8pq$	$p=8, q=11$	1.234
	3ZXD92	$(p+q+4pq)/8pq$	$p=11, q=8$	1.23
	73DQGU	$(p+q+4pq)/8pq$	$p=8, q=11$	1.23
	89XB2L	$(K1a+K1b+K02ab)/2ab$	$a=8, b=11$	1.233975584
	8WL32E	$f(a)+f(b)+4f(a)f(b)/8f(a)f(b)$	$a=8, b=11$	1.2340
	9B2GZR	$(p+q+4pq)/8pq$	$p=8, q=11$	1.2340
	9WF9VE	$(1/2)+(1/8p)+(1/8q)$	$p=8, q=11$	1.234
	CLMWAC	$(p+q+4pq)/8pq$	$p=8, q=11$	1.2340
	E4J4F9	$(p+q+4pq)/8pq$	$p=8, q=11$	1.23398
	EMAGTD	$(p+q+4pq)/8pq$	$p=8, q=11$	1.234
	G3ZUNK	$(p+q+4pq)/8pq$	$p=8, q=11$	1.2340
	GZBRC6	$(p+q+4pq)/8pq$	$p=8, q=11$	1.233976
	J2X7XK	$p+q+4pq/8pq$	$p=8, q=11$	1.234
	JTLPQK	$(1+2p)/4p$	$p=8, q=11$	1.2340
	KG24D2	$(p+q+4pq)/8pq$	$p=8, q=11$	1.2340
	LU8G88	$(p+q+4pq)/8pq$	$p=8, q=11$	1.234
	MFKHZ6	$(p+q+4pq)/8pq$	$p=8, q=11$	1.233
	NQKDWE	$(p+s+4ps)/8ps$	$p=8, s=11$	1.2340
	PTMRHB	$(p+q+4pq)/8pq$	$p=8, q=11$	1.2340
	RF9CNB	$(p+q+4pq)/8pq$	$p=8, q=11$	1.234
	TERNJ2	$(p+q+4pq)/8pq$	$p=8, q=11$	1.23
	UHPKQ8	$(p+q+4pq)/8pq$	$p=8, q=11$	1.2340
	WRKETV	$(p+q+4pq)/8pq$	$p=8, q=11$	1.234
	WYKRX6	$(p+q+4pq)/8pq$	$p=8, q=11$	1.2340
	XHDZK3	$(p+q+4pq)/8pq$	$p=8, q=11$	1.234
	YF4CMN	$(p+q+4pq)/8pq$	$p=8, q=11$	1.233975584

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
TPOX	YH96E2	$(p+q+4pq)/8pq$	p=8, q=11	1.2340
	YM4PQX	$(p+q+4pq)/8pq$	p=8, q=11	1.2340

Statistical Analysis Summary of TPOX

Likelihood Ratio (Grand Mean): **1.234**Number of participants included: **29**Standard Deviation: **0.0012**Number of participants excluded: **0**

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
vWA	2JYZZZ	1/2	-	0.5000
	37K82T	2/4		0.5
	3ZXD92	1/2		0.50
	73DQGU	k0		0.5
	89XB2L	K0		0.5
	8WL32E	1/2	-	0.5
	9B2GZR	2/4		0.5
	9WF9VE	1/2		0.5
	CLMWAC	1/2		0.5000
	E4J4F9	2/4		0.5
	EMAGTD	2/4		0.5
	G3ZUNK	1/2		0.5000
	GZBRC6	1/2		0.5
	J2X7XK	2/4	N/A	0.5
	JTLPQK	(2)/(4)		0.5
	KG24D2	1/2		0.5
	LU8G88	1/2		0.5
	MFKHZ6	1/2		0.5
	NQKDWE	1/2		0.500
	PTMRHB	1/2		0.5000
	RF9CNB	2/4	heterozygotes different	0.500
	TERNJ2	1/2	n/a	0.5
	UHPKQ8	1/2	-	0.5000
	WRKETV	2/4		0.5
	WYKRX6	1/2	--	0.5000
	XHDZK3	0.5		0.5
	YF4CMN	1/2	1/2	0.5

TABLE 7

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
vWA	YH96E2	2/4		0.5
	YM4PQX	1/2	N/A	0.5

Statistical Analysis Summary of vWA

Likelihood Ratio (Grand Mean): **0.500**Number of participants included: **29**Standard Deviation: **0.0000**Number of participants excluded: **0**

Kinship DNA Statistics

Is the claim of the following relationship supported by the genetic evidence: **Half Siblings?**

TABLE 8

WebCode	Kinship Index	Claim Supported?
2JYZZZ	186.4717	yes
37K82T	186.472	Yes
3ZXD92	186.47	Strong support
73DQGU	179.05	Yes
89XB2L	186.47170081	No
8WL32E	186.4830	Yes, the relationship of Half Siblings is supported.
9B2GZR	Combined Relationship Index(CRI)= 186.4717	Yes
9WF9VE	186.4717	Yes
CLMWAC	186	Yes, partially
E4J4F9	193.27555	Yes
EMAGTD	186	yes
G3ZUNK	186.47	YES
GZBRC6	99.466581%	Yes
J2X7XK	187	YES
JTLPQK	186.4717	yes
KG24D2	186.4717	Yes
LU8G88	186	The kinship index provides moderate support for this claim.
MFKHZ6	184.975	Moderately strong support for H1 (verbal scale – Buckleton, J.S., Bright,J., and Taylor, D. (2016). Forensic DNA Evidence Interpretation, Second Edition, pg 56)
NQKDWE	186.4717	Yes
PTMRHB	186.4675	Yes
RF9CNB	186.4717008	yes
TERNJ2	182.2	Yes

TABLE 8

WebCode	Kinship Index	Claim Supported?
UHPKQ8	186.4717	Yes
WRKETV	186.472	Yes
WYKRX6	186.4717	Yes
XHDZK3	185	yes
YF4CMN	186.4717008	Yes
YH96E2	186.4830	NO
YM4PQX	186.5	Yes

Additional Kinship Statistical Results

TABLE 9

WebCode	Additional Statistical Results
3749R2	Our laboratory does not perform half-sibling statistics.
37K82T	LR is 186.472, which means that it is 186 times more likely that they are half siblings than they are unrelated.
89XB2L	Making the comparison between the genetic profile of the half sibling relationship ,is obtained a kinship index of 186,47170081 and a probability fo relationship of 99,46658616%.
9B2GZR	The LR and CRI values has been rounded up to a maximum of 4 decimal points.
9WF9VE	Two DNA profiles from a potential Caucasian half sibling relationship were compared by using the allele frequencies assigned for the test loci. There are likely to be half sibling relationship because probability of kinship index is greater than 99.47%.
CLMWAC	Although the kinship index reflects the support of the evidence to the relationship of half siblings, this support is weak, so as a conclusion our lab will consider this inconclusive.
E4J4F9	Based on the genetic evidence, Profile A and Profile B is 193.275 more likely to be half sibling than unrelated.
GZBRC6	Statistical results: 1. Half siblings/Uncle-Nephew/Grandparent/Grandchild versus Unrelated - 99,466581%. 2. First cousins versus Unrelated - 98,943364%. 3. Full siblings versus Unrelated - 51,785939%
JTLPQK	LR obtained is bigger than 1, so it is in favor of the relationship of half siblings, however the a priori value is required to determine the probability and on this to make a decision
KG24D2	The Cumulative Relationship Index is 186.4717. It is 186.4717 times more likely that Sibling 1 and Sibling 2 are related as half siblings. The probability that Sibling 1 and Sibling 2 are second degree relatives is 99.4666 (Prior probability = 0.5). Therefore, it is highly likely that Sibling 1 and Sibling 2 are related as second degree relatives. Pu and Linacre have shown that at a likelihood ratio > 33 that STR test results correctly confirm high-sibship among known half-sibling pairs >99% of the time (Increasing the confidence of half-sibship determination by using 15 STR loci. Pu and Linacre. Journal of Forensic and Legal Medicine. 15(2008) 373-377.)
LU8G88	Evaluate all associated case information before declaring the validity of the claim. Note: our procedures normally take linkage into consideration however, linkage was not considered in this instance for the purposes of the test.
MFKHZ6	If the questioned relationship was a part of a criminal matter then a theta correction factor would be incorporated which would likely reduce the Kinship Index further.
PTMRHB	For the Caucasian population the DNA evidence is 186 times more likely if Profile A and Profile B are half siblings than if they are unrelated. This kinship index provides moderately strong support for Profile A and Profile B to be related as half siblings. The probability that Profile A and Profile B are half siblings is approximately 99.4666%.
RF9CNB	With a LR value of 186.4717008, the half sibling relationship is supported by genetic evidence.
TERNJ2	The purpose of the Y-STR loci in the kinship exercise is a mystery. With no data, this part of the exercise seems unreportable.
YF4CMN	The results show that the hypothesis of A and B being half siblings, is 186.4717008 times more probable than the hypothesis of them being genetically unrelated.
YH96E2	LR<10000

TABLE 9

WebCode	Additional Statistical Results
YM4PQX	The two individuals' profiles are 186.5 times more likely to be observed if they both are half-siblings rather than if they are unrelated.

Additional Comments

TABLE 10

WebCode	Additional Comments
2JVDMT	PI calculations not performed when alleged parent is excluded as biological parent. Half-sib calculations not performed at lab.
2JYZZZ	Extraction: Item1, Item2 and Item3 were extracted using in-situ method. Amplification: Item1, Item2 and Item3 were amplified using AMPFLSTR Identifiler Direct Kit on 9700 GeneAmp PCR System. Item3 were amplified using AMPFLSTR Y-Filer Kit on 9700 GeneAmp PCR System. Electrophoresis: Electrophoresis were carried out on Genetic Analyzer 3500xl for Item1, Item2 and Item3 (Identifiler Direct). Electrophoresis were carried out on Genetic Analyzer 3130xl for Item3 (Yfiler). Quality Control: Reagent Blank, Positive Control and Negative Control were carried out throughout the analysis and all gave intended results. The statistical formula were derived by DNA View Statistical Software and calculated using Microsoft Excel.
62KQNP	My laboratory would not normally produce PI calculations when the AF is eliminated as the biological parent (father).
9B2GZR	1. The PI values are not calculated as Item 3 has been excluded as possible biological father of child (Item 2). 2. Y-filer analysis has not been carried out as Item 3 has been excluded as possible biological father of child (Item 2). 3. Amplification of Item 1, Item 2 and Item 3 were carried out via Thermal Cycler Geneamp PCR System 9700. 4. Electrophoresis process was carried out by Genetic Analyzer 3500xl for all items. 5. Positive and negative control were carried out along with the analysis and all gave the intended results.
E4J4F9	1. Multiplex PCR amplification was performed on all samples using PowerPlex Fusion Systems. 2. Y-STR analysis was performed on item #3 using PowerPlex Y23 Systems. 3. Capillary electrophoresis was carried out through ABI 3130xl Genetic Analyzer (Applied Biosystems). 4. STR analysis was performed using GeneMapper ID v3.2.1 software
E4MLMK	A visual exclusion was made. The Paternity Index is not calculated by the [Laboratory] for an exclusion.
HM7NVG	Based on the DNA results, the alleged father can be excluded as the biological father of the known daughter.
J2X7XK	Our paternity test is carried out as a two-stage process. The first stage identifies the maternal alleles - the remaining alleles must come from the father. These paternal alleles are compared with the profile from the alleged father. Many of the paternal alleles are not present in the alleged father's profile therefore he is excluded as the father at this stage. Since exclusion has been determined at this first stage I did not proceed with the second stage Paternity Index Calculation as it was unnecessary.
JTLPQK	Paternity is excluded if more than 3 exclusions are found between alleged father and children; we found exclusion in fourteen of the markers analyzed. In this condition we think that is not necessary the total LR calculation.
JZMYWC	No statistical analysis was performed regarding the question of parentage for Item 2 by Item 3. This is because Item 3 was eliminated as a biological parent (father) of Item 2. There were three or more inconsistencies observed at the PowerPlex Fusion loci which constitutes an elimination. The child was assessed to be female by Amelogenin and DYS391 and therefore, no Y-STR testing was performed on Item 2.
L6APX6	The alleged father is excluded as father of the child at 12 of 21 loci. The [Laboratory] does not calculate a LR when the alleged father is excluded as the father at four or more loci tested.
LU8G88	PI calculations not provided since alleged father was excluded as biological father of donor of Item 2 at profile comparison, therefore calculation not required as per lab protocol.
MFKHZ6	PI and Probability of Paternity not calculated in this laboratory where there are more than 3 exclusions between the known child and alleged parent. If the putative siblings have a common mother then further testing using Mitochondrial DNA would be suggested. Linkage has not been considered in the half-sibling calculation.

TABLE 10

WebCode	Additional Comments
MZQVUC	Visual exclusion of the alleged father as biological father. Paternity index not calculated for visual exclusions.
NQKDWE	Extraction: Item 1, Item 2 and Item 3 were extracted using in-situ method. Amplification: Item 1, Item 2 and Item 3 were amplified using AMPFLSTR Identifiler Direct Kit on 9700 GeneAmp PCR System. Item 3 were amplified using AMPFLSTR Y-Filer Kit on 9700 GeneAmp PCR System. Electrophoresis: Electrophoresis were carried out on Genetic Analyzer 3500xl for Item 1, Item 2 and Item 3 (Identifiler Direct). Electrophoresis were carried out on Genetic Analyzer 3130xl for Item 3 (Yfiler). Quality Control: Reagent blank, Positive Control and Negative Control were carried out through analysis and all gave intended results. The statistical formula were derived by DNA View Statistical Software and calculated using Microsoft Excel.
RALNU7	PI was not calculated for SE33 as our laboratory doesn't use SE33 in the statistical calculations for relationship testing. Kinship portion was not used due to our laboratory only processes for parent- child comparisons (Paternity/Maternity Trios, Paternity/Maternity Duos, Reverse Paternity).
RF9CNB	exercise 1: This laboratory does not perform statistical analysis when there are three or more STR systems excluded. In the data sheet the PI value is filled with "Exclusion" in the systems that don't have a concordance between Alleged father and the Known child.
RG7PC4	Our laboratory does not calculate a likelihood ratio for half-siblings.
RVJ3J4	NR = No Results
TERNJ2	Our lab does not report Y-STR data in relationship testing casework. As a consequence, we are not performing this part of the paternity proficiency.
TGZU63	Regarding locus specific PI (p.4, Item 3) and Paternity DNA Statistics (p.6, questions 1,2 and 3), no PI values, CPI or Probability of Paternity is entered because this laboratory would not calculate these values for an obvious exclusion of an alleged father (> or = to 3 loci exclusion) observed upon initial comparison of the trio's profiles.
UHPKQ8	Extraction: Item 1, Item 2 and Item 3 were extracted using in-situ method. Amplification: Item 1, Item 2 and Item 3 were amplified using AMPFLSTR Identifiler Direct Kit on 9700 GeneAmp PCR System. Item 3 were amplified using AMPFLSTR Y-Filer Kit on 9700 GeneAmp PCR System. Electrophoresis: Electrophoresis were carried out on Genetic Analyzer 3500xl for Item 1, Item 2 and Item 3 (Identifiler Direct). Electrophoresis were carried out on Genetic Analyzer 3130xl for Item 3 (Yfiler). Quality Control: Reagent blank, Positive Control and Negative Control were carried out through analysis and all gave intended results. The statistical formula were derived from DNAview Statistical Software and calculated using Microsoft Excel.
WRKETV	Statistical software used for PI calculation in our laboratory includes mutation rate information for particular loci into PI formula.
WYKRX6	Extraction: Item 1, Item 2 and Item 3 were extracted using in-situ method. Amplification: Item 1, Item 2 and Item 3 were amplified using AMPFLSTR Identifiler Direct Kit on 9700 GeneAmp PCR System. Item 3 were amplified using AMPFLSTR Y-Filer Kit on 9700 GeneAmp PCR System. Electrophoresis: Electrophoresis were carried out on Genetic Analyzer 3500xl for Item 1, Item 2 and Item 3 (Identifiler Direct). Electrophoresis were carried out on Genetic Analyzer 3130xl for Item 3 (Yfiler). Quality Control: Reagent blank, Positive Control and Negative Control were carried out through analysis and all gave intended results. The statistical formula were derived by DNA View Statistical Software and Calculated using Microsoft Excel.
YF4CMN	Markers with empty boxes indicate that no experiment was performed. Markers filled with a single dash "-" indicate that no alleles resulted.
YM4PQX	Paternity indices were not calculated since the Alleged Parent (Item 3) was excluded as the biological parent of the Child (Item 2).
Z7CA3R	Exclusion of alleged father at interpretation stage therefore statistical weighting not performed. No PI or Probability of Paternity performed therefore no Population database specified. The laboratory does not

TABLE 10

WebCode	Additional Comments
Z7CA3R	Exclusion of alleged father at interpretation stage therefore statistical weighting not performed. No PI or Probability of Paternity performed therefore no Population database specified. The laboratory does not perform statistical analysis in the way set out in Part III [Table 7 - Kinship Likelihood Ratio Results] of this report. Therefore this section has not been completed.

-End of Report-
(Appendix may follow)

Appendix: Data Sheet

Collaborative Testing Services ~ Forensic Testing Program

Test No. 18-5872: DNA Parentage

DATA MUST BE RECEIVED BY October 22, 2018 TO BE INCLUDED IN THE REPORT

Participant Code:

WebCode:

Accreditation Release Statement

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

This participant's data is intended for submission to ASCLD/LAB, ANAB and/or A2LA. (Accreditation Release section on the last page must be completed and submitted.)

This participant's data is NOT intended for submission to ASCLD/LAB, ANAB or A2LA.

Scenario:

A standard paternity trio case has been presented to your laboratory. Blood standards have been collected from the mother, daughter, and alleged father. Your laboratory is tasked with examining the blood standards and comparing the DNA profiles.

Items Submitted (Sample Pack DNP3):

Item 1: Blood Sample from Known Parent (Caucasian Mother)

Item 2: Blood Sample from Known Child (Daughter)

Item 3: Blood Sample from Alleged Father (African American)

****Please note Data Sheet Changes****

Reporting of YSTR alleles generated from primarily autosomal STR multiplex systems.

1) The YSTR loci commonly generated from STR multiplex systems are now included in the STR section. (DYS391, DYS570, DYS576, Y Indel)

2) There is no longer a need to transcribe YSTR results from STR multiplex systems to the YSTR section.

For probabilistic genotyping software, a text field has been added directly below the amplification kit section for each item to capture which software was used.

DNA Reporting Instructions:

Use the instructions below to complete the following DNA Analysis sections of this data sheet.

* Report alleles in numerical order, separated by a comma.

* Follow your laboratory procedures for reporting homozygotes (i.e. "14,14", "14,-", "14")

* PI = Paternity Index

* If your laboratory would not normally produce PI calculations under the given scenario, record your explanation within the Part IV: Additional comments section.

Example	D1S1656	D2S1338	D2S441	D3S1358	D5S818
STR	15,18	12,17	10	14	5,13
PI	1.65	3.01	3.16	4.12	5.65

Please return all pages of this data sheet.

Page 1 of 10

Part I: DNA ANALYSIS FOR ITEM 1

STR Amplification Kit(s) Used: Please check all the brands that apply for this item and record only additional kit specific information in the blank provided (i.e. 16, Plus, Direct, HS, Fusion, etc.).

Identifiler® _____
 GlobalFiler™ _____
 Investigator® 24plex _____
 PowerPlex® _____ Other _____

Report the Probabilistic Genotyping Software Used (if applicable): _____

ITEM 1

D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
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	

Please return all pages of this data sheet.

Part I: DNA ANALYSIS FOR ITEM 2

STR Amplification Kit(s) Used: Please check all the brands that apply for this item and record only additional kit specific information in the blank provided (i.e. 16, Plus, Direct, HS, Fusion, etc.).

Identifiler® _____
 GlobalFiler™ _____
 Investigator® 24plex _____
 PowerPlex® _____ Other _____

Report the Probabilistic Genotyping Software Used (if applicable): _____

ITEM 2

D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
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	

Part I: DNA ANALYSIS FOR ITEM 3

Please refer to the 'Part II: Paternity DNA Statistics' section of this data sheet regarding the suggested Population Databases to use to determine PI values.

STR Amplification Kit(s) Used: Please check all the brands that apply for this item and record only additional kit specific information in the blank provided (i.e. 16, Plus, Direct, HS, Fusion, etc.).

Identifiler® _____
 GlobalFiler™ _____
 Investigator® 24plex _____
 PowerPlex® _____ Other _____

Report the Probabilistic Genotyping Software Used (if applicable): _____

		D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	STR	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	PI	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	STR	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	PI	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
ITEM 3		D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	STR	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	PI	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		FGA	Penta D	Penta E	SE33	TH01	TPOX
	STR	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	PI	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		vWA	DYS391	DYS570	DYS576	Y Indel	
	STR	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
	PI	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	

YSTR results are for proficiency concordance only.

YSTR Amplification Kit(s) Used: Please check all the brands that apply for this item and record only additional kit specific information in the blank provided (i.e. Plus, 23, etc.).

Yfiler™ _____
 PowerPlex® Y _____
 Other _____

		DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
ITEM 3		DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	

Please return all pages of this data sheet.

Part I (continued): Additional DNA Results

- Use this section to report results for loci not currently listed in other sections of the data sheet.
- Report alleles in numerical order, separated by a comma.

	Item 1	Item 2	Item 3 STR	Item 3 PI
_____	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
_____	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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_____	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Participant Code:

WebCode:

Part II: PATERNITY DNA STATISTICS

For the purposes of consistency among reported statistical values, use the ethnicity listed for the alleged parent and choose one of the following population databases for all statistical calculations in this test:

1. **FBI Popstats:** If FBI Popstats is already available in your laboratory then you may select that option, otherwise use the population database below.
2. **NIST-STRBASE** is a publicly available U.S. population dataset at STRBASE on the following NIST web site : <http://www.cstl.nist.gov/strbase/NISTpop.htm#Autosomal>
 - a. On the NIST web site, select the hyperlink labeled "Allele frequencies from autosomal STRs as Excel file" under the title "NIST 1036 U.S. Population Dataset".
3. If you are unable to use one of the suggested population databases, report the population database used in the blank provided next to the "Other Pop. Database" option. Due to the tendency for allele frequencies to vary amongst different databases, no consensus value will be determined for this option. When reporting a population database name, please refrain from using terms that would allude to a laboratory specific name or location; general terms such as "local/state database" or "laboratory specific database" are preferred.

1) Choose a Population Database:

FBI Popstats Pop. Database

NIST STRBASE Pop. Database

Other Pop. Database: _____

2) Record the Combined Paternity Index value: _____

3) Record the Probability of Paternity: _____

4) Based on DNA results, select your response from the following options. If the wording differs from the normal wording in your reports, adapt these conclusions as best as you can and use your preferred wording in your additional comments.

The Alleged parent (Item 3) could not be excluded as the biological parent of child (Item 2).

The Alleged parent (Item 3) is excluded as a possible biological parent of child (Item 2).

Inconclusive as to whether the Alleged parent (Item 3) could be the biological parent of child (Item 2).
(Please document the reason in the Additional Comments section of this data sheet.)

Please return all pages of this data sheet.

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Part III: KINSHIP DNA STATISTICS

Complete the following Kinship DNA Statistics section, **if applicable to your laboratory**, using the instructions below.

- Use the provided scenario for context.
- Use the supplied allele frequencies for calculations (adopted from the NIST STRBASE database).
- Only test the relationship in question that is listed in the scenario (e.g. half siblings versus unrelated).
- Complete the entire table including the formula used in the calculation and the allele legend.

Example: Questioned Half Sibling Relationship							
Locus	Profile A	Profile B	Allele Frequencies		Formula Used	Allele Legend	Likelihood Ratio
FGA	18, 26	18, 26	18: 0.0249	26: 0.0263	$(p+q+4pq) / 8pq$	p = 18 q = 26	10.272
vWA	14, 15	14, 17	14: 0.0928	15: 0.1053	$(1+4p)/8p$	p = 14	1.847
			17: 0.1053				

Scenario:

The two DNA profiles below are presented as a potential Caucasian half sibling relationship. Using the allele frequencies shown for the tested loci, calculate the likelihood ratio for support of the proposed relationship versus being unrelated.

Locus	A	B	Allele Frequencies		Formula Used	Allele Legend	Likelihood Ratio
D1S1656	17.3,18.3	12,17.3	12: 0.1163	17.3: 0.1330			
			18.3: 0.0499				
D2S1338	17,25	16,22	16: 0.0374	17: 0.1856			
			22: 0.0346	25: 0.1025			
D2S441	10,14	13,14	10: 0.2105	13: 0.0291			
			14: 0.2410				
D3S1358	14,18	13,15	13: 0.0014	14: 0.1066			
			15: 0.2729	18: 0.1510			
D5S818	11,12	12,12	11: 0.3560	12: 0.3878			
D7S820	9,9	9,10	9: 0.1676	10: 0.2562			
D8S1179	13,15	14,15	13: 0.3296	14: 0.1662			
			15: 0.1039				
D10S1248	15,16	15,15	15: 0.1967	16: 0.1330			
D12S391	18,18	18,22	18: 0.1717	22: 0.0956			

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Participant Code:

WebCode:

Part III: KINSHIP DNA STATISTICS (continued)

Locus	A	B	Allele Frequencies		Formula Used	Allele Legend	Likelihood Ratio
D13S317	11,13	11,12	11: 0.3255 13: 0.1163	12: 0.2687			
D16S539	11,12	9,12	9: 0.1066 12: 0.3144	11: 0.3144			
D18S51	15,22	15,17	15: 0.1704 22: 0.0069	17: 0.1385			
D19S433	12,13	13,14	12: 0.0706 14: 0.3615	13: 0.2548			
D21S11	29,29	30,32.2	29: 0.2022 32.2: 0.0900	30: 0.2825			
D22S1045	16,16	15,16	15: 0.3213	16: 0.3823			
Amelogenin	X,X	X,Y					
CSF1PO	11,12	10,11	10: 0.2202 12: 0.3601	11: 0.3089			
FGA	22,25	22,25	22: 0.2050	25: 0.0789			
PentaD	12,14	13,13	12: 0.2327 14: 0.0609	13: 0.1967			
PentaE	11,17	11,12	11: 0.0873 17: 0.0485	12: 0.1994			
SE33	14.2,21.2	14.2,28.2	14.2: 0.0028 28.2: 0.0762	21.2: 0.0235			
TH01	6,9.3	6,9	6: 0.2355 9.3: 0.3449	9: 0.1191			
TPOX	8,11	8,11	8: 0.5249	11: 0.2521			
vWA	17,18	15,19	15: 0.1053 18: 0.2022	17: 0.2839 19: 0.1039			

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Part III: KINSHIP DNA STATISTICS (continued)

1) From your evaluation of the profiles on the preceeding pages, record the kinship index: _____

2) Is the relationship claim of Half Siblings supported by the genetic evidence?

3) Use the space provided to document any additional statistical results and relationship conclusions.

Part IV: ADDITIONAL COMMENTS

Comments regarding any part of this Parentage Test.

Return Instructions: Data must be received via online data entry, fax (please include a cover sheet), or mail by *October 22, 2018* to be included in the report. Emailed data sheets will not be accepted.

QUESTIONS?

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

ONLINE DATA ENTRY: www.cts-portal.com

FAX: +1-571-434-1937

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

Please return all pages of this data sheet.

Collaborative Testing Services ~ Forensic Testing Program

RELEASE OF DATA TO ACCREDITATION BODIES

The following Accreditation Releases will apply only to:

Participant Code:

WebCode:

for Test No. **18-5872: DNA Parentage**

This release page must be completed and received by **October 22, 2018** to have this participant's submitted data included in the reports forwarded to the respective Accreditation Bodies.

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

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

ANAB Certificate No. _____
(Include ASCLD/LAB Certificates here)

A2LA Certificate No. _____

Step 2: Complete the Laboratory Identifying Information in its entirety

Signature and Title _____

Laboratory Name _____

Location (City/State) _____

Accreditation Release

Return Instructions

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

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

Please return all pages of this data sheet.

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