Collaborative Testing Services, Inc
FORENSIC TESTING PROGRAM

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DNA Parentage Test No. 23-5870/5
Summary Report

Each participant received a sample set consisting of four blood samples representing a paternity case. Samples were collected from a mother, a daughter, and two potential fathers. Participants were requested to analyze the samples using their existing protocols. The test also included a paper kinship exercise where participants were requested to evaluate the provided DNA profiles and determine if a full sibling relationship was supported. Data were returned from 69 participants and are compiled into the following tables:

Report Contents: Page:

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 consisted of known blood samples from four individuals (Items 1-4), a mother, a daughter, and two potential fathers, provided on either FTA™ Micro Cards or swabs. Participants were requested to analyze these items using their existing protocols. Also included with this test was a kinship exercise that consisted of autosomal DNA profiles of two individuals for comparison. Participants were requested to determine if a full sibling relationship claim was supported following the review of these profiles.

SAMPLE PREPARATION: All items were prepared from human whole blood which was drawn into EDTA tubes. Each FTA™ Micro Card was spotted with 75µL of blood, while each swab (two swabs per item) was spotted with 100µL of blood. Item 1 was blood from a female (mother) donor, Item 2 was blood from a female (daughter) donor, Item 3 was blood from a male donor who was not the biological father of the Item 2 female, and Item 4 was blood from a male donor who was the biological father of the Item 2 female. The 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 February 06, 2023.

SAMPLE SET ASSEMBLY: For each sample set, all Items (1-4) were packaged into separate envelopes and then placed together in a pre-labeled sample set envelope and sealed. The sealed sample set 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 full sibling relationship.

VERIFICATION: All predistribution laboratories confirmed the manufacturer's expected associations. Consistent allelic results and associations were reported across both substrates.

Key to Test Substrates

5870 - FTA™ Micro Cards

5875 - Swabs

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	17.3,17.3	17,21	11,14	16,18	11,12	*
	10,13	10,11	13,16	17,17	8,11	12,13
	14,15	13,16	28,30	15,15	X,X	11,11
	19,26	9,9	12,12	23.2,30.2	9.3,9.3	9,11
	16,17	NM	NM	NM	NM	
2	15.3,17.3	17,25	14,14	16,19	11,12	*
	10,10	11,14	13,13	17,17.3	8,8	12,12
	15,16	13,16	29,30	15,16	X,X	11,12
	21,26	9,13	12,12	30.2,30.2	8,9.3	8,11
	14,17	NM	NM	NM	NM	
3	15.3,17.3	17,24	10,10	15,17	10,11	*
	10,10	10,14	14,16	17,17	11,11	11,13
	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2	13,13	10,11	16,27.2	6,8	8,8
	16,19	10	*	*	2	
4	15.3,16.3	19,25	10,14	17,19	12,12	*
	10,12	14,14	13,16	17.3,22	8,11	12,12
	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12	21,31.2	8,9.3	8,8
	14,19	10	*	*	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	37,39	14	15,15	12	28	23	10	11	13
	16	10	11	19	27	14	15	10	25
	40	11	*	21	17	20	22	*	11
4	37,39	14	13,18	13	30	23	10	11	12
	14	10	11	20	25	15	17.2	11	28
	38	11	*	17	20	22	20	*	11

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

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

Paternity Indices

Mode 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					
3PI - Grand Mean ±3STD Range**						
	5.91-11.1	0-0.154	0-0.00434	0-0.128	0.622-0.717	*
	3.06-4.33	1.84-3.67	0-0.0777	0-0.00425	0-0.00730	0-0.0329
	0-0.244	0-0.0835	0-0.0706	0.914-4.40	-	0-0.0725
	0-1.99	3.41-6.91	0-0.181	0-0.0112	3.03-6.36	1.72-2.06
	0-0.00806					
4PI - Grand Mean ±3STD Range**						
	2.76-15.1	3.07-6.99	1.22-2.96	7.65-57.9	1.16-1.55	*
	1.45-2.35	3.83-7.36	0-3.69	11.2-36.5	2.83-5.67	0.922-5.65
	1.87-5.32	1.37-1.83	2.11-2.90	0.155-2.70	-	1.18-1.65
	2.09-3.57	1.82-3.39	1.93-3.23	0-1.41	2.90-6.74	1.64-2.20
	4.06-6.40					
4PI - NIST STRBASE						
	8.69	4.93	2.07	30.3	1.35	*
	1.91	5.79	1.64	24.5	4.17	3.22
	3.39	1.61	2.47	1.35	-	1.40
	2.86	2.66	2.57	0.0117	5.07	1.93
	5.32					

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

**These ranges are provided to allow participants that utilized databases other than the one(s) listed above to review their results. Following AABB guidelines, ranges were determined by taking the grand mean of all data submitted for the associated locus and calculating 3 standard deviations above and below that value. Data values are presented in three significant figures. Data values less than zero are presented as "0."

Summary Comments

The DNA Parentage test was designed to allow participants to assess their proficiency in the analysis and interpretation of four known blood samples, along with the determination of paternity. Item 1 was blood from a female (mother) donor, Item 2 was blood from a female (daughter) donor, Item 3 was blood from a male donor who was not the biological father of the Item 2 female, and Item 4 was blood from a male donor who was 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 participants were able to obtain full STR profiles from all four items. Consistent results were achieved by all participants, with the exception of three participants which reported an inconsistent result for one or more items. For YSTR results, all participants were able to obtain full profiles and reported consistent data for both Items 3 and 4.

Paternity DNA Statistics:
All participants reported that the source of Item 4 could not be excluded as the biological father of Item 2. Of the participants that reported probability of paternity values, all reported 99.99% or higher.

Kinship DNA Statistics:
Thirty-six participants submitted a response for the paper kinship exercise. For the loci likelihood ratio (LR) data, five participants reported values that were outliers from the calculated mode, four of which reported outlying values at multiple loci.

Of the 36 participants, 30 reported a combined Kinship Index between 650 and 800.5. Thirty-three participants reported that the claim of a full sibling relationship (Caucasian) was supported, one participant reported that the relationship claim was not supported, and two reported “Inconclusive.”

STR Amplification Kit(s) & Results

TABLE 1

WebCode-Test	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

2EX9QH-5870	PowerPlex® Fusion 6C					
	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12	23.2,30.2	9.3	9,11
	16,17					
3D86RE-5870	PowerPlex® Fusion					
	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12		9.3	9,11
	16,17					
4JNXFJ-5870	PowerPlex® Fusion 5C					
	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12		9.3	9,11
	16,17	Inconclusive				
4L8EFK-5870	PowerPlex® Fusion (Gene Analysen)					
	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30		X	11
	19,26	9	12		9.3	9,11
	16,17					
4LHLYE-5870	PowerPlex® Fusion 5C					
	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12		9.3	9,11
	16,17					
4Y8GGZ-5870	PowerPlex® Fusion					
	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12		9.3	9,11
	16,17					

TABLE 1

WebCode-Test	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

66MNAN-5870 PowerPlex® Fusion 6C System (DNAVIEW ver 29.52)

	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26	9,9	12,12	23.2,30.2	9.3,9.3	9,11
	16,17					

68FEKA-5870 GlobalFiler™

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26			23.2,30.2	9.3	9,11
	16,17					

6D6U9G-5875 PowerPlex® Fusion 5C

	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26	9,9	12,12		9.3,9.3	9,11
	16,17					

6PWEVY-5870 PowerPlex® Fusion

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12		9.3	9,11
	16,17					

764ZQ9-5875 GlobalFiler™

	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26			23.2,30.2	9.3,9.3	9,11
	16,17	no result			no result	

7TRUDL-5875 PowerPlex® 5C

	17.3	17,21	11,14	16,18	11,12	--
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12	--	9.3	9,11
	16,17	--	--	--	--	

TABLE 1

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	

Item 1 - STR Results

8AA7MQ-5870 GlobalFiler™ Express

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26			23.2,30.2	9.3	9,11
	16,17					

8BMMXJ-5875 Investigator ESSplex SE QS (GeneMapper Software 5)

	17.3,17.3	17,21	11,14	16,18		
		10,11	13,16	17,17		12,13
1	14,15	13,16	28,30	15,15	X,X	
	19,26			23.2,30.2	9.3,9.3	
	16,17					

8GKU6Z-5870 PowerPlex® 21

	17.3,17.3	17,21		16,18	11,12	19,21
	10,13	10,11		17,17	8,11	12,13
1	14,15	13,16	28,30		X,X	11,11
	19,26	9,9	12,12		9.3,9.3	9,11
	16,17					

8WFKJA-5870 Identifiler® Direct

		17,21		16,18	11,12	
	10,13	10,11			8,11	12,13
1	14,15	13,16	28,30		X,X	11,11
	19,26				9.3,9.3	9,11
	16,17					

8ZFMPY-5870 GlobalFiler™

	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26			23.2,30.2	9.3,9.3	9,11
	16,17	-			-	

9JLGWV-5870 GlobalFiler™

	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26			23.2,30.2	9.3,9.3	9,11
	16,17	-			-	

TABLE 1

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	

Item 1 - STR Results

9R9RJH-5870	GlobalFiler™					
	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26			23.2,30.2	9.3,9.3	9,11
	16,17	NR			NR	
9VFXLW-5870	GlobalFiler™					
	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26			23.2,30.2	9.3,9.3	9,11
	16,17					
A4299J-5870	GlobalFiler™ Express					
	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26			23.2,30.2	9.3,9.3	9,11
	16,17					
CDHPXV-5875	GlobalFiler™					
	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26			23.2,30.2	9.3	9,11
	16,17	-			-	
CPHFXV-5870	PowerPlex® 21					
	17.3,17.3	17,21		16,18	11,12	19,21
	10,13	10,11		17,17	8,11	12,13
1	14,15	13,16	28,30		X,X	11,11
	19,26	9,9	12,12		9.3,9.3	9,11
	16,17					
DMRFD6-5875	GlobalFiler™ Express					
	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26			23.2,30.2	9.3	9,11
	16,17					

TABLE 1

WebCode-Test	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

EAWLG2-5875 GlobalFiler™ Express

	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26			23.2,30.2	9.3,9.3	9,11
	16,17					

EE74DA-5870 PowerPlex® Fusion

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12		9.3	9,11
	16,17	NR				

EMNBC2-5875 GlobalFiler™

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26			23.2,30.2	9.3	9,11
	16,17					

FHGK2E-5870 26 plex

	17.3,17.3	17,21	11,14	16,18	11,12	19,21
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26	9,9	12,12		9.3,9.3	9,11
	16,17					

G8DLT6-5870 GlobalFiler™ Express

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X,X	11
	19,26			23.2,30.2	9.3	9,11
	16,17	NM			NM	

GWUAE7-5870 GlobalFiler™ Express

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X,X	11
	19,26			23.2,30.2	9.3	9,11
	16,17	NM			NM	

TABLE 1

WebCode-Test	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

HCT9L2-5870 GlobalFiler™

	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26			23.2,30.2	9.3,9.3	9,11
	16,17	Not detected			Not detected	

JWY4TY-5875 PowerPlex® Fusion 6C

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12	23.2,30.2	9.3	9,11
	16,17	NR	NR	NR		

KQ6LXJ-5870 GlobalFiler™

	17.3,17.3	17,21	11,14	16,18	11,12	-
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26	-	-	23.2,30.2	9.3,9.3	9,11
	16,17	-	-	-	-	

KQEYWM-5870 PowerPlex® Fusion 5C

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12		9.3	9,11
	16,17					

KXNUD4-5875 VeriFiler Express

	17.3	17,21	11,14	16,18	11,12	19,21
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12		9.3	9,11
	16,17					

KYQWK7-5870 GlobalFiler™, ForenSeq DNA Signature Prep

	17.3,17.3	17,21	11,14	16,18	11,12	19,21
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26	9,9	12,12	23.2,30.2	9.3,9.3	9,11
	16,17	NR	NR	NR	NR	

TABLE 1

WebCode-Test	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

L4QFMH-5870 PowerPlex® Fusion 6C

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12	23.2,30.2	9.3	9,11
	16,17					

LD93DK-5870 PowerPlex® Fusion

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12		9.3	9,11
	16,17					

M6P4EZ-5870 GlobalFiler™

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X,X	11
	19,26			23.2,30.2	9.3	9,11
	16,17	NM			NM	

MZ449Z-5875 Promega GenePrint 24 (GeneMapper Software 5)

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12		9.3	9,11
	16,17					

MZD9FH-5870 PowerPlex® Fusion

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12		9.3	9,11
	16,17					

N4QFBU-5870 PowerPlex® Fusion

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12		9.3	9,11
	16,17					

TABLE 1

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	

Item 1 - STR Results

NX6MYV-5870 PowerPlex® Fusion

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12		9.3	9,11
	16,17					

NZLC4U-5875 GlobalFiler™ Express

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26			23.2,30.2	9.3	9,11
	16,17					

PPZKYH-5870 PowerPlex® 21

	17.3,17.3	17,21		16,18	11,12	19,21
	10,13	10,11		17,17	8,11	12,13
1	14,15	13,16	28,30		X,X	11,11
	19,26	9,9	12,12		9.3,9.3	9,11
	16,17					

Q2KLVE-5870 PowerPlex® 21

	17.3,17.3	17,21		16,18	11,12	19,21
	10,13	10,11		17,17	8,11	12,13
1	14,15	13,16	28,30		X,X	11,11
	19,26	9,9	12,12		9.3,9.3	9,11
	16,17					

QF62XE-5870 GlobalFiler™ Express

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26			23.2,30.2	9.3	9,11
	16,17	NR			NR	

QU8FDQ-5870 PowerPlex® Fusion 6C

	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26	9,9	12,12	23.2,30.2	9.3,9.3	9,11
	16,17					

TABLE 1

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	

Item 1 - STR Results

RAEWWX-5870 PowerPlex® Fusion

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12		9.3	9,11
	16,17	NR				

RJQQ8N-5875 GlobalFiler™

	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26			23.2,30.2	9.3,9.3	9,11
	16,17	No Results			No Results	

RYUMBP-5875 PowerPlex® Fusion (Genoproof)

	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26	9,9	12,12		9.3,9.3	9,11
	16,17	F,F				

TK2TUM-5875 GlobalFiler™

	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26			23.2,30.2	9.3,9.3	9,11
	16,17	no results			no results	

TPY6VE-5870 GlobalFiler™ Express

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26			23.2,30.2	9.3	9,11
	16,17					

TXRJEQ-5870 GlobalFiler™ Express

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X,X	11
	19,26			23.2,30.2	9.3	9,11
	16,17	NM			NM	

TABLE 1

WebCode-Test	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

UNQ8JB-5870 PowerPlex® Fusion 6C

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12	23.2,30.2	9.3	9,11
	16,17					

V9QUHK-5870 PowerPlex® Fusion

	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	17,17
	17,17	9,9	12,12	23.2,30.2	9.3,9.3	9,11
	16,17	F,F	F,F	F,F		

VYFRWJ-5870 Identifiler® Direct

		17,21		16,18	11,12	
	10,13	10,11			8,11	12,13
1	14,15	13,16	28,30		X,X	11,11
	19,26				9.3,9.3	9,11
	16,17					

W8QDHR-5870 PowerPlex® Fusion

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12		9.3	9,11
	16,17	NR				

WZPW8M-5870 PowerPlex® Fusion 5C

	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26	9,9	12,12		9.3,9.3	9,11
	16,17					

XCUKFH-5870 GlobalFiler™ Express

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X,X	11
	19,26			23.2,30.2	9.3	9,11
	16,17	NM			NM	

TABLE 1

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	

Item 1 - STR Results

XUQAAQ-5870 GlobalFiler™ Express

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X,X	11
	19,26			23.2,30.2	9.3	9,11
	16,17	NM			NM	

YCR8E8-5870 PowerPlex® Fusion

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12		9.3	9,11
	16,17					

YDYRUU-5875 GlobalFiler™ (Familias3)

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X,X	11
	19,26			23.2,30.2	9.3	9,11
	16,17					

YKN3C7-5870 PowerPlex® Fusion

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X,X	11
	19,26	9	12		9.3	9,11
	16,17					

YLKGZN-5870 GlobalFiler™

	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26			23.2,30.2	9.3,9.3	9,11
	16,17					

YQPL7N-5870 GlobalFiler™ Express

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X,X	11
	19,26			23.2,30.2	9.3	9,11
	16,17	NM			NM	

TABLE 1

WebCode-Test	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

ZEATFT-5870 PowerPlex® Fusion 6C

	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26	9,9	12,12	23.2,30.2	9.3,9.3	9,11
	16,17	-	-	-		

ZGG9PK-5870 GlobalFiler™ (DBLR)

	17.3,17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17,17	8,11	12,13
1	14,15	13,16	28,30	15,15	X,X	11,11
	19,26			23.2,30.2	9.3,9.3	9,11
	16,17					

ZPBAA6-5870 PowerPlex® Fusion 5C

	17.3	17,21	11,14	16,18	11,12	
	10,13	10,11	13,16	17	8,11	12,13
1	14,15	13,16	28,30	15	X	11
	19,26	9	12		9.3	9,11
	16,17					

TABLE 1

WebCode-Test	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

2EX9QH-5870	PowerPlex® Fusion 6C					
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12	30.2	8,9.3	8,11
	14,17					
3D86RE-5870	PowerPlex® Fusion					
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17					
4JNXFJ-5870	PowerPlex® Fusion 5C					
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17	Inconclusive				
4L8EFK-5870	PowerPlex® Fusion (Gene Analysen)					
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30		X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17					
4LHLYE-5870	PowerPlex® Fusion 5C					
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17					
4Y8GGZ-5870	PowerPlex® Fusion					
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17					

TABLE 1

WebCode-Test	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

66MNAN-5870 PowerPlex® Fusion 6C System (DNAVIEW ver 29.52)

	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26	9,13	12,12	30.2,30.2	8,9.3	8,11
	14,17					

68FEKA-5870 GlobalFiler™

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26			30.2	8,9.3	8,11
	14,17					

6D6U9G-5875 PowerPlex® Fusion 5C

	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26	9,13	12,12		8,9.3	8,11
	14,17					

6PWEVY-5870 PowerPlex® Fusion

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17					

764ZQ9-5875 GlobalFiler™

	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2,30.2	8,9.3	8,11
	14,17	no result			no result	

7TRUDL-5875 PowerPlex® 5C

	15.3,17.3	17,25	14	16,19	11,12	--
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12	--	8,9.3	8,11
	14,17	--	--	--	--	

TABLE 1

WebCode-Test	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

8AA7MQ-5870 GlobalFiler™ Express

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26			30.2	8,9.3	8,11
	14,17					

8BMMXJ-5875 Investigator ESSplex SE QS (GeneMapper Software 5)

	15.3,17.3	17,25	14,14	16,19		
		11,14	13,13	17,17.3		12,12
2	15,16	13,16	29,30	15,16	X,X	
	21,26			30.2,30.2	8,9.3	
	14,17					

8GKU6Z-5870 PowerPlex® 21

	15.3,17.3	17,25		16,19	11,12	12,19
	10,10	11,14		17,17.3	8,8	12,12
2	15,16	13,16	29,30		X,X	11,12
	21,26	9,13	12,12		8,9.3	8,11
	14,17					

8WFKJA-5870 Identifiler® Direct

		17,25		16,19	11,12	
	10,10	11,14			8,8	12,12
2	15,16	13,16	29,30		X,X	11,12
	21,26				8,9.3	8,11
	14,17					

8ZFMPY-5870 GlobalFiler™

	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2,30.2	8,9.3	8,11
	14,17	-			-	

9JLGWV-5870 GlobalFiler™

	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2,30.2	8,9.3	8,11
	14,17	-			-	

TABLE 1

WebCode-Test	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

9R9RJH-5870 GlobalFiler™						
	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2,30.2	8,9.3	8,11
	14,17	NR,NR			NR	
9VFXLW-5870 GlobalFiler™						
	15.3,7.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2,30.2	8,9.3	8,11
	14,17					
A4299J-5870 GlobalFiler™ Express						
	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2,30.2	8,9.3	8,11
	14,17					
CDHPXV-5875 GlobalFiler™						
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26			30.2	8,9.3	8,11
	14,17	-			-	
CPHFXV-5870 PowerPlex® 21						
	15.3,17.3	17,25		16,19	11,12	12,19
	10,10	11,14		17,17.3	8,8	12,12
2	15,16	13,16	29,30		X,X	11,12
	21,26	9,13	12,12		8,9.3	8,11
	14,17					
DMRFD6-5875 GlobalFiler™ Express						
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26			30.2	8,9.3	8,11
	14,17					

TABLE 1

WebCode-Test	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

EAWLG2-5875 GlobalFiler™ Express						
	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2,30.2	8,9.3	8,11
	14,17					
EE74DA-5870 PowerPlex® Fusion						
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17	NR				
EMNBC2-5875 GlobalFiler™						
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26			30.2	8,9.3	8,11
	14,17					
FHGK2E-5870 26 PLEX						
	15.3,17.3	17,25	14,14	16,19	11,12	12,19
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26	9,13	12,12		8,9.3	8,11
	14,17					
G8DLT6-5870 GlobalFiler™ Express						
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2 *	8,9.3	8,11
	14,17	NM			NM	
GWUAE7-5870 GlobalFiler™ Express						
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2*	8,9.3	8,11
	14,17	NM			NM	

TABLE 1

WebCode-Test	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

HCT9L2-5870 GlobalFiler™

	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2,30.2	8,9.3	8,11
	14,17	Not detected			Not detected	

JWY4TY-5875 PowerPlex® Fusion 6C

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12	30.2	8,9.3	8,11
	14,17	NR	NR	NR		

KQ6LXJ-5870 GlobalFiler™

	15.3,17.3	17,25	14,14	16,19	11,12	-
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26	-	-	30.2,30.2	8,9.3	8,11
	14,17	-	-	-	-	

KQEYWM-5870 PowerPlex® Fusion 5C

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17					

KXNUD4-5875 VeriFiler Express

	15.3,17.3	17,25	14	16,19	11,12	12,19
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17					

KYQWK7-5870 GlobalFiler™, ForenSeq DNA Signature Prep

	15.3,17.3	17,25	14,14	16,19	11,12	12,19
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26	9,13	12,12	30.2,30.2	8,9.3	8,11
	14,17	NR	NR	NR	NR	

TABLE 1

WebCode-Test	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

L4QFMH-5870 PowerPlex® Fusion 6C

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12	30.2	8,9.3	8,11
	14,17					

LD93DK-5870 PowerPlex® Fusion

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17					

M6P4EZ-5870 GlobalFiler™

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2*	8,9.3	8,11
	14,17	NM			NM	

MZ449Z-5875 Promega GenePrint 24 (GeneMapper Software 5)

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17					

MZD9FH-5870 PowerPlex® Fusion

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17					

N4QFBU-5870 PowerPlex® Fusion

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17					

TABLE 1

Item 2 - STR Results

WebCode-Test	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	
NX6MYV-5870	PowerPlex® Fusion					
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17					
NZLC4U-5875	GlobalFiler™ Express					
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26			30.2	8,9.3	8,11
	14,17					
PPZKYH-5870	PowerPlex® 21					
	15.3,17.3	17,25		16,19	11,12	12,19
	10,10	11,14		17,17.3	8,8	12,12
2	15,16	13,16	29,30		X,X	11,12
	21,26	9,13	12,12		8,9.3	8,11
	14,17					
Q2KLVE-5870	PowerPlex® 21					
	15.3,17.3	17,25		16,19	11,12	12,19
	10,10	11,14		17,17.3	8,8	12,12
2	15,16	13,16	29,30		X,X	11,12
	21,26	9,13	12,12		8,9.3	8,11
	14,17					
QF62XE-5870	GlobalFiler™ Express					
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26			30.2	8,9.3	8,11
	14,17	NR			NR	
QU8FDQ-5870	PowerPlex® Fusion 6C					
	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26	9,13	12,12	30.2,30.2	8,9.3	8,11
	14,17					

TABLE 1

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	

Item 2 - STR Results

RAEWWX-5870 PowerPlex® Fusion

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17	NR				

RJQQ8N-5875 GlobalFiler™

	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2,30.2	8,9.3	8,11
	14,17	No Results			No Results	

RYUMBP-5875 PowerPlex® Fusion (Genoproof)

	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26	9,13	12,12		8,9.3	8,11
	14,17	F,F				

TK2TUM-5875 GlobalFiler™

	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2,30.2	8,9.3	8,11
	14,17	no results			no results	

TPY6VE-5870 GlobalFiler™ Express

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26			30.2	8,9.3	8,11
	14,17					

TXRJEQ-5870 GlobalFiler™ Express

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2*	8,9.3	8,11
	14,17	NM			NM	

TABLE 1

Item 2 - STR Results

WebCode-Test	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	
UNQ8JB-5870	PowerPlex® Fusion 6C					
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12	30.2	8,9.3	8,11
	14,17					
V9QUHK-5870	PowerPlex® Fusion					
	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26	9,13	12,12	30.2,30.2	8,9.3	8,11
	14,17	F,F	F,F	F,F		
VYFRWJ-5870	Identifiler® Direct					
		17,25		16,19	11,12	
	10,10	11,14			8,8	12,12
2	15,16	13,16	29,30		X,X	11,12
	21,26				8,9.3	8,11
	14,17					
W8QDHR-5870	PowerPlex® Fusion					
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17	NR				
WZPW8M-5870	PowerPlex® Fusion 5C					
	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26	9,13	12,12		8,9.3	8,11
	14,17					
XCUKFH-5870	GlobalFiler™ Express					
	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2*	8,9.3	8,11
	14,17	NM			NM	

TABLE 1

WebCode-Test	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

XUQAAQ-5870 GlobalFiler™ Express

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2*	8,9.3	8,11
	14,17	NM			NM	

YCR8E8-5870 PowerPlex® Fusion

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17					

YDYRUU-5875 GlobalFiler™ (Familias3)

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2	8,9.3	8,11
	14,17					

YKN3C7-5870 PowerPlex® Fusion

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17					

YLKGZN-5870 GlobalFiler™

	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2,30.2	8,9.3	8,11
	14,17					

YQPL7N-5870 GlobalFiler™ Express

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2*	8,9.3	8,11
	14,17	NM			NM	

TABLE 1

WebCode-Test	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

ZEATFT-5870 PowerPlex® Fusion 6C

	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26	9,13	12,12	30.2,30.2	8,9.3	8,11
	14,17	-	-	-		

ZGG9PK-5870 GlobalFiler™ (DBLR)

	15.3,17.3	17,25	14,14	16,19	11,12	
	10,10	11,14	13,13	17,17.3	8,8	12,12
2	15,16	13,16	29,30	15,16	X,X	11,12
	21,26			30.2,30.2	8,9.3	8,11
	14,17					

ZPBAA6-5870 PowerPlex® Fusion 5C

	15.3,17.3	17,25	14	16,19	11,12	
	10	11,14	13	17,17.3	8	12
2	15,16	13,16	29,30	15,16	X	11,12
	21,26	9,13	12		8,9.3	8,11
	14,17					

TABLE 1

WebCode-Test	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

2EX9QH-5870	PowerPlex® Fusion 6C					
	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11	16,27.2	6,8	8
	16,19	10	21	17		
3D86RE-5870	PowerPlex® Fusion					
	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	10				
4JNXFJ-5870	PowerPlex® Fusion 5C					
	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	Inconclusive				
4L8EFK-5870	PowerPlex® Fusion (Gene Analysen)					
	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31		X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	10				
4LHLYE-5870	PowerPlex® Fusion 5C					
	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	10				
4Y8GGZ-5870	PowerPlex® Fusion					
	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	10				

TABLE 1

WebCode-Test	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

66MNAN-5870 PowerPlex® Fusion 6C System (DNAVIEW ver 29.52)

	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2	13,13	10,11	16,27.2	6,8	8,8
	16,19	10	21	17		

68FEKA-5870 GlobalFiler™

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2			16,27.2	6,8	8
	16,19	10			2	

6D6U9G-5875 PowerPlex® Fusion 5C

	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2	13,13	10,11		6,8	8,8
	16,19	10				

6PWEVY-5870 PowerPlex® Fusion

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	10				

764ZQ9-5875 GlobalFiler™

	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2			16,27.2	6,8	8,8
	16,19	10			2	

7TRUDL-5875 PowerPlex® 5C

	15.3,17.3	17,24	10	15,17	10,11	--
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11	--	6,8	8
	16,19	10	--	--	--	

TABLE 1

WebCode-Test	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

8AA7MQ-5870 GlobalFiler™						
	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2			16,27.2	6,8	8
	16,19	10			2	
8BMMXJ-5875 Investigator ESSplex SE QS (GeneMapper Software 5)						
	15.3,17.3	17,24	10,10	15,17		
		10,14	14,16	17,17		11,13
3	13,15	15,17	28,31	16,16	X,Y	
	20,22.2			16,27.2	6,8	
	16,19					
8GKU6Z-5870 PowerPlex® 21						
	15.3,17.3	17,24		15,17	10,11	12,14
	10,10	10,14		17,17	11,11	11,13
3	13,15	15,17	28,31		X,Y	10,11
	20,22.2	13,13	10,11		6,8	8,8
	16,19					
8WFKJA-5870 Identifiler® Direct						
		17,24		15,17	10,11	
	10,10	10,14			11,11	11,13
3	13,15	15,17	28,31		X,Y	10,11
	20,22.2				6,8	8,8
	16,19					
8ZFMPY-5870 GlobalFiler™						
	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2			16,27.2	6,8	8,8
	16,19	10			2	
9JLGWV-5870 GlobalFiler™						
	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2			16,27.2	6,8	8,8
	16,19	10			2	

TABLE 1

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	

Item 3 - STR Results

9R9RJH-5870 GlobalFiler™						
	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2			16,27.2	6,8	8,8
	16,19	10			2	
9VFXLW-5870 GlobalFiler™						
	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2			16,27.2	6,8	8,8
	16,19	10			2	
A4299J-5870 GlobalFiler™ Express						
	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2			16,27.2	6,8	8,8
	16,19	10			2	
CDHPXV-5875 GlobalFiler™						
	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2			16,27.2	6,8	8
	16,19	10			2	
CPHFXV-5870 PowerPlex® 21						
	15.3,17.3	17,24		15,17	10,11	12,14
	10,10	10,14		17,17	11,11	11,13
3	13,15	15,17	28,31		X,Y	10,11
	20,22.2	13,13	10,11		6,8	8,8
	16,19					
DMRFD6-5875 GlobalFiler™ Express						
	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2			16,27.2	6,8	8
	16,19	10			2	

TABLE 1

WebCode-Test	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

EAWLG2-5875 GlobalFiler™ Express

	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2			16,27.2	6,8	8,8
	16,19	10			2	

EE74DA-5870 PowerPlex® Fusion

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	10				

EMNBC2-5875 GlobalFiler™

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2			16,27.2	6,8	8
	16,19	10			2	

FHGK2E-5870 26 PLEX

	15.3,17.3	17,24	10,10	15,17	10,11	12,14
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2	13,13	10,11		6,8	8,8
	16,19	10				

G8DLT6-5870 GlobalFiler™ Express

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2			16,27.2	6,8	8
	16,19	10			2	

GWUAE7-5870 GlobalFiler™ Express

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2			16,27.2	6,8	8
	16,19	10			2	

TABLE 1

WebCode-Test	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

HCT9L2-5870 GlobalFiler™

	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2			16,27.2	6,8	8,8
	16,19	10			2	

JWY4TY-5875 PowerPlex® Fusion 6C

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11	16,27.2	6,8	8
	16,19	10	21	17		

KQ6LXJ-5870 GlobalFiler™

	15.3,17.3	17,24	10,10	15,17	10,11	-
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2	-	-	16,27.2	6,8	8,8
	16,19	10	-	-	2	

KQEYWM-5870 PowerPlex® Fusion 5C

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	10				

KXNUD4-5875 VeriFiler Express (Familias)

	15.3,17.3	17,24	10	15,17	10,11	12,14
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19				2	

KYQWK7-5870 GlobalFiler™, ForenSeq DNA Signature Prep

	15.3,17.3	17,24	10,10	15,17	10,11	12,14
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2	13,13	10,11	16,27.2	6,8	8,8
	16,19	10	21	17	2	

TABLE 1

WebCode-Test	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

L4QFMH-5870 PowerPlex® Fusion 6C

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11	16,27.2	6,8	8
	16,19	10	21	17		

LD93DK-5870 PowerPlex® Fusion

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	10				

M6P4EZ-5870 GlobalFiler™

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2			16,27.2	6,8	8
	16,19	10			2	

MZ449Z-5875 Promega GenePrint 24 (GeneMapper Software 5)

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	10				

MZD9FH-5870 PowerPlex® Fusion

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	10				

N4QFBU-5870 PowerPlex® Fusion

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	10				

TABLE 1

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	

Item 3 - STR Results

NX6MYV-5870 PowerPlex® Fusion						
	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	10				
NZLC4U-5875 GlobalFiler™ Express						
	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2			16,27.2	6,8	8
	16,19	10			2	
PPZKYH-5870 PowerPlex® 21						
	15.3,17.3	17,24		15,17	10,11	12,14
	10,10	10,14		17,17	11,11	11,13
3	13,15	15,17	28,31		X,Y	10,11
	20,22.2	13,13	10,11		6,8	8,8
	16,19					
Q2KLVE-5870 PowerPlex® 21 (Kinship (Caucasian))						
	15.3,17.3	17,24		15,17	10,11	12,14
	10,10	10,14		17,17	11,11	11,13
3	13,15	15,17	28,31		X,Y	10,11
	20,22.2	13,13	10,11		6,8	8,8
	16,19					
QF62XE-5870 GlobalFiler™ Express						
	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2			16,27.2	6,8	8
	16,19	10			2	
QU8FDQ-5870 PowerPlex® Fusion 6C						
	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2	13,13	10,11	16,27.2	6,8	8,8
	16,19	10	21	17		

TABLE 1

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	

Item 3 - STR Results

RAEWWX-5870 PowerPlex® Fusion

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	10				

RJQQ8N-5875 GlobalFiler™

	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2			16,27.2	6,8	8,8
	16,19	10			2	

RYUMBP-5875 PowerPlex® Fusion

	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2	13,13	10,11		6,8	8,8
	16,19	10				

TK2TUM-5875 GlobalFiler™

	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2			16,27.2	6,8	8,8
	16,19	10			2	

TPY6VE-5870 GlobalFiler™

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2			16,27.2	6,8	8
	16,19	10			2	

TXRJEQ-5870 GlobalFiler™ Express

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2			16,27.2	6,8	8
	16,19	10			2	

TABLE 1

WebCode-Test	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

UNQ8JB-5870 PowerPlex® Fusion 6C						
	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11	16,27.2	6,8	8
	16,19	10	21	17		
V9QUHK-5870 PowerPlex® Fusion						
	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	15.3,17.3	14,16	15.3,17.3	11,11	11,13
3	13,15	15.3,17.3	28,31	15.3,17.3	X,Y	10,11
	20,22.2	13,13	10,11	15.3,17.3	6,8	8,8
	16,19	10	21	17		
VYFRWJ-5870 Identifiler® Direct						
		17,24		15,17	10,11	
	10,10	10,14			11,11	11,13
3	13,15	15,17	28,31		X,Y	10,11
	20,22.2				6,8	8,8
	16,19					
W8QDHR-5870 PowerPlex® Fusion						
	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	10				
WZPW8M-5870 PowerPlex® Fusion 5C						
	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2	13,13	10,11		6,8	8,8
	16,19	10				
XCUKFH-5870 GlobalFiler™ Express						
	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2			16,27.2	6,8	8
	16,19	10			2	

TABLE 1

WebCode-Test	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

XUQAAQ-5870 GlobalFiler™ Express

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2			16,27.2	6,8	8
	16,19	10			2	

YCR8E8-5870 PowerPlex® Fusion

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	10				

YDYRUU-5875 GlobalFiler™ (Familias3)

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2			16,27.2	6,8	8
	16,19	10			2	

YKN3C7-5870 PowerPlex® Fusion

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	10				

YLKGZN-5870 GlobalFiler™

	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2			16,27.2	6,8	8,8
	16,19	10			2	

YQPL7N-5870 GlobalFiler™ Express

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2			16,27.2	6,8	8
	16,19	10			2	

TABLE 1

WebCode-Test	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

ZEATFT-5870 PowerPlex® Fusion 6C

	15.3,17.3	17,24	10,10	15,17	10,11	-
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2	13,13	10,11	16,27.2	6,8	8,8
	16,19	10	21	17	-	

ZGG9PK-5870 GlobalFiler™ (DBLR)

	15.3,17.3	17,24	10,10	15,17	10,11	
	10,10	10,14	14,16	17,17	11,11	11,13
3	13,15	15,17	28,31	16,16	X,Y	10,11
	20,22.2			16,27.2	6,8	8,8
	16,19	10			2	

ZPBAA6-5870 PowerPlex® Fusion 5C

	15.3,17.3	17,24	10	15,17	10,11	
	10	10,14	14,16	17	11	11,13
3	13,15	15,17	28,31	16	X,Y	10,11
	20,22.2	13	10,11		6,8	8
	16,19	10				

TABLE 1

WebCode-Test	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 4 - STR Results

2EX9QH-5870	PowerPlex® Fusion 6C					
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12	21,31.2	8,9.3	8
	14,19	10	17	20		
3D86RE-5870	PowerPlex® Fusion					
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	10				
4JNXFJ-5870	PowerPlex® Fusion 5C					
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	Inconclusive				
4L8EFK-5870	PowerPlex® Fusion (Gene Analysen)					
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30		X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	10				
4LHLYE-5870	PowerPlex® Fusion 5C					
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	10				
4Y8GGZ-5870	PowerPlex® Fusion					
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	10				

TABLE 1

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	

Item 4 - STR Results

66MNAN-5870 PowerPlex® Fusion 6C System (DNAVIEW ver 29.52)

	15.3,16.3	19,25	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12	21,31.2	8,9.3	8,8
	14,19	10	17	20		

68FEKA-5870 GlobalFiler™

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8
	14,19	10			2	

6D6U9G-5875 PowerPlex® Fusion 5C

	15.3,16.3	19,25	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8,8
	14,19	10				

6PWEVY-5870 PowerPlex® Fusion

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	10				

764ZQ9-5875 GlobalFiler™

	15.3,16.3	19,25	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8,8
	14,19	10			2	

7TRUDL-5875 PowerPlex® 5C

	15.3,16.3	19,25	10,14	17,19	12	--
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12	--	8,9.3	8
	14,19	10	--	--	--	

TABLE 1

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	

Item 4 - STR Results

8AA7MQ-5870 GlobalFiler™

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8
	14,19	10			2	

8BMMXJ-5875 Investigator ESSplex SE QS (GeneMapper Software 5)

	15.3,16.3	19,25	10,14	17,19		
		14,14	13,16	17.3,22		12,12
4	16,18	12,13	29,30	15,16	X,Y	
	19,21			21,31.2	8,9.3	
	14,19					

8GKU6Z-5870 PowerPlex® 21

	15.3,16.3	19,25		17,19	12,12	12,15
	10,12	14,14		17.3,22	8,11	12,12
4	16,18	12,13	29,30		X,Y	10,12
	19,21	9,13	10,12		8,9.3	8,8
	14,19					

8WFKJA-5870 Identifiler® Direct

		19,25		17,19	12,12	
	10,12	14,14			8,11	12,12
4	16,18	12,13	29,30		X,Y	10,12
	19,21				8,9.3	8,8
	14,19					

8ZFMPY-5870 GlobalFiler™

	15.3,16.3	19,25	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8,8
	14,19	10			2	

9JLGWV-5870 GlobalFiler™

	15.3,16.3	19,25	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8,8
	14,19	10			2	

TABLE 1

Item 4 - STR Results

WebCode-Test	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	
9R9RJH-5870	GlobalFiler™					
	15.3,16.3	19,25	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8,8
	14,19	10			2	
9VFXLW-5870	GlobalFiler™					
	15.3,16.3	19,25	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8,8
	14,19	10			2	
A4299J-5870	GlobalFiler™ Express					
	15.3,16.3	19,25	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8,8
	14,19	10			2	
CDHPXV-5875	GlobalFiler™					
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8
	14,19	10			2	
CPHFXV-5870	PowerPlex® 21					
	15.3,16.3	19,25		17,19	12,12	12,15
	10,12	14,14		17.3,22	8,11	12,12
4	16,18	12,13	29,30		X,Y	10,12
	19,21	9,13	10,12		8,9.3	8,8
	14,19					
DMRFD6-5875	GlobalFiler™ Express					
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8
	14,19	10			2	

TABLE 1

WebCode-Test	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 4 - STR Results

EAWLG2-5875 GlobalFiler™ Express

	15.3,16.3	19,25	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8,8
	14,19	10			2	

EE74DA-5870 PowerPlex® Fusion

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	10				

EMNBC2-5875 GlobalFiler™

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8
	14,19	10			2	

FHGK2E-5870 26 PLEX

	15.3,16.3	19,25	10,14	17,19	12,12	12,15
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8,8
	14,19	10				

G8DLT6-5870 GlobalFiler™ Express

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8
	14,19	10			2	

GWUAE7-5870 GlobalFiler™ Express

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8
	14,19	10			2	

TABLE 1

WebCode-Test	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 4 - STR Results

HCT9L2-5870 GlobalFiler™						
	15.3,16.3	19,25	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8,8
	14,19	10			2	
JWY4TY-5875 PowerPlex® Fusion 6C						
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12	21,31.2	8,9.3	8
	14,19	10	17	20		
KQ6LXJ-5870 GlobalFiler™						
	15.3,16.3	19,25	10,14	17,19	12,12	-
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	-	-	21,31.2	8,9.3	8,8
	14,19	10	-	-	2	
KQEYWM-5870 PowerPlex® Fusion 5C						
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	10				
KXNUD4-5875 VeriFiler Express (Familias)						
	15.3,16.3	19,25	10,14	17,19	12	12,15
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19				2	
KYQWK7-5870 GlobalFiler™, ForenSeq DNA Signature Prep						
	15.3,16.3	19,25	10,14	17,19	12,12	12,15
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12	21,31.2	8,9.3	8,8
	14,19	10	17	20	2	

TABLE 1

WebCode-Test	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 4 - STR Results

L4QFMH-5870 PowerPlex® Fusion 6C

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12	21,31.2	8,9.3	8
	14,19	10	17	20		

LD93DK-5870 PowerPlex® Fusion

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	10				

M6P4EZ-5870 GlobalFiler™ Express

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8
	14,19	10			2	

MZ449Z-5875 Promega GenePrint 24 (GeneMapper Software 5)

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	10				

MZD9FH-5870 PowerPlex® Fusion

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	10				

N4QFBU-5870 PowerPlex® Fusion

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	10				

TABLE 1

WebCode-Test	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 4 - STR Results

NX6MYV-5870 PowerPlex® Fusion						
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	10				
NZLC4U-5875 GlobalFiler™ Express						
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8
	14,19	10			2	
PPZKYH-5870 PowerPlex® 21						
	15.3,16.3	19,25		17,19	12,12	12,15
	10,12	14,14		17.3,22	8,11	12,12
4	16,18	12,13	29,30		X,Y	10,12
	19,21	9,13	10,12		8,9.3	8,8
	14,19					
Q2KLVE-5870 PowerPlex® 21 (Kinship (Caucasian))						
	15.3,16.3	19,25		17,19	12,12	12,15
	10,12	14,14		17.3,22	8,11	12,12
4	16,18	12,13	29,30		X,Y	10,12
	19,21	9,13	10,12		8,9.3	8,8
	14,19					
QF62XE-5870 GlobalFiler™ Express						
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8
	14,19	10			2	
QU8FDQ-5870 PowerPlex® Fusion 6C						
	15.3,16.3	19,25	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12	21,31.2	8,9.3	8,8
	14,19	10	17	20		

TABLE 1

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	

Item 4 - STR Results

RAEWWX-5870 PowerPlex® Fusion						
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	10				
RJQQ8N-5875 GlobalFiler™						
	15.3,16.3	19,25	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8,8
	14,19	10			2	
RYUMBP-5875 PowerPlex® Fusion (Genoproof)						
	15.3,16.3	19,25	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16		10,12
	19,21	9,13	10,12		8,9.3	8,8
	14,19					
TK2TUM-5875 GlobalFiler™						
	15.3,16.3	19,25	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8,8
	14,19	10			2	
TPY6VE-5870 GlobalFiler™						
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8
	14,19	10			2	
TXRJEQ-5870 GlobalFiler™ Express						
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2*	8,9.3	8
	14,19	10			2	

TABLE 1

WebCode-Test	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 4 - STR Results

UNQ8JB-5870 PowerPlex® Fusion 6C						
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12	21,31.2	8,9.3	8
	14,19	10	17	20		
V9QUHK-5870 PowerPlex® Fusion						
	15.3,16.3	19,15	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15.3,17.3	15.3,17.3	10,12
	19,21	9,13	10,12	21,31.2	8,9.3	8,8
	14,19	10	21	17		
VYFRWJ-5870 Identifiler® Direct						
		19,25		17,19	12,12	
	10,12	14,14			8,11	12,12
4	16,18	12,13	29,30		X,Y	10,12
	19,33.2				8,9.3	8,8
	14,19					
W8QDHR-5870 PowerPlex® Fusion						
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	10				
WZPW8M-5870 PowerPlex® Fusion 5C						
	15.3,16.3	19,25	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8,8
	14,19	10				
XCUKFH-5870 GlobalFiler™ Express						
	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8
	14,19	10			2	

TABLE 1

WebCode-Test	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 4 - STR Results

XUQAAQ-5870 GlobalFiler™ Express

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8
	14,19	10			2	

YCR8E8-5870 PowerPlex® Fusion

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	10				

YDYRUU-5875 GlobalFiler™ (Familias3)

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8
	14,19	10			2	

YKN3C7-5870 PowerPlex® Fusion

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	10				

YLKGZN-5870 GlobalFiler™

	15.3,16.3	19,25	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8,8
	14,19	10			2	

YQPL7N-5870 GlobalFiler™ Express

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8
	14,19	10			2	

TABLE 1

WebCode-Test	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 4 - STR Results

ZEATFT-5870 PowerPlex® Fusion 6C

	15.3,16.3	19,25	10,14	17,19	12,12	-
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12	21,31.2	8,9.3	8,8
	14,19	10	17	20	-	

ZGG9PK-5870 GlobalFiler™ (DBLR)

	15.3,16.3	19,25	10,14	17,19	12,12	
	10,12	14,14	13,16	17.3,22	8,11	12,12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21			21,31.2	8,9.3	8,8
	14,19	10			2	

ZPBAA6-5870 PowerPlex® Fusion 5C

	15.3,16.3	19,25	10,14	17,19	12	
	10,12	14	13,16	17.3,22	8,11	12
4	16,18	12,13	29,30	15,16	X,Y	10,12
	19,21	9,13	10,12		8,9.3	8
	14,19	10				

Paternity Index Results

TABLE 2

WebCode-Test	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

4JNXFJ-5870	FBI PopStats, laboratory-specific database					
		0.001		0.002	0.652	
	3.42	2.46			0.002	0.004
3PI	0.003	0.001	0.001			0.003
	0.005	4.73	0.001		3.91	1.83
	0.003					
4L8EFK-5870	NIST-STRBASE					
	8.60	0.24	0.00	0.20	0.67	
	3.90	3.00	0.11	0.00	0.01	0.05
3PI	0.38	0.13	0.11			0.11
	3.04	5.08	0.19		5.23	1.90
	0.01					
66MNAN-5870	NIST-STRBASE					
	8.5952	0	0	0	0.6723	
	3.9027	3.0083	0	0	0	0
3PI	0	0	0	2.6159		0
	0	5.0845	0	0	5.2319	1.9050
	0					
6D6U9G-5875	FBI PopStats					
	8.5911	0	0	0	0.6543	
	3.4530	2.4814	0	0	0	0
3PI	0	0	0	2.6157		0
	0	5.1282	0		3.9620	1.8282
	0					
764ZQ9-5875	NIST-STRBASE					
	7.62	0	0	0	0.673	
	3.63	2.95	0	0	0	0
3PI	0	0	0	2.59		0
	0			0	4.92	1.91
	0					
7TRUDL-5875	FBI PopStats, Promega/NIST					
	8.22	--	--	--	0.652	--
	3.43	2.46	--	--	--	--
3PI	--	--	--	2.57		--
	--	4.73	--	--	3.91	1.83
	--					
8AA7MQ-5870	FBI PopStats					
	8.4175				0.65798	
	3.4530	2.4343				
3PI				3.1566		
					3.9620	1.8282

TABLE 2

WebCode-Test	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

8BMMXJ-5875 laboratory specific database

	8.595	0	0	0		
		2.281	0	0		0
3PI	0	0	0	2.616		
	0			0	4.418	
	0					

8GKU6Z-5870 NIST-STRBASE

	8.5911	0		0	0.6722	2.1115
	3.9032	3.0084		0	0	0
3PI	0	0	0			0
	0	5.0839	0		5.2301	1.9051
	0					

8WFKJA-5870 [Location Identifying Database]

					0.6711	
	3.6738	2.3419				
3PI						
					4.3630	1.8762

8ZFMPY-5870 FBI PopStats

	8.4175				0.6579	
	3.4530	2.4343				
3PI				3.1566		
					3.9620	1.8282

9JLGWV-5870 FBI PopStats

	8.4175				0.65798	
	3.4530	2.4343				
3PI				3.1566		
					3.9620	1.8282

9VFXLW-5870 [Location Identifying Database]

		exc	exc	exc		
			exc	exc	exc	exc
3PI	exc	exc	exc			exc
	exc			exc		
	exc					

EMNBC2-5875 NIST-STRBASE

	8.5911	0	0	0	0.6722	
	3.9032	3.0084	0	0	0	0
3PI	0	0	0	2.6157		0
	0			0	5.2301	1.9051
	0					

TABLE 2

WebCode-Test	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

FHGK2E-5870 FBI PopStats, [Location Identifying Database]

	8.5911				0.67222	2.1231
	3.9032	3.0084				
3PI				2.6157		
		5.0839			5.2301	1.9051

GWUAE7-5870 NIST-STRBASE

	8.5910	0.0010	0.0028	0.0020	0.6722	
	3.9032	3.0084	0.0028	0.0028	0.0020	0.0040
3PI	0.0030	0.0010	0.0010	2.6157		0.0030
	0.0041			0.0064	5.2301	1.9051
	0.0030					

JWY4TY-5875 Laboratory Specific Database

	8.418	0.000	0.000	0.000	0.658	
	3.453	2.434	0.000	0.000	0.000	0.000
3PI	0.000	0.000	0.000	3.157		0.000
	0.000	4.810	0.000	0.000	3.962	1.828
	0.000					

KQ6LXJ-5870 FBI PopStats

	8.4175	-	-	-	0.65798	-
	3.4530	2.4343	-	-	-	-
3PI	-	-	-	3.1566		-
	-	-	-	-	3.9620	1.8282
	-					

KXNUD4-5875 NIST-STRBASE

	8.60	0	0	0	0.67	2.12
	3.90	3.01	0	0	0	0
3PI	0	0	0	0		0
	0	5.08	0		5.23	1.91
	0					

MZ449Z-5875 FBI PopStats, NIST-STRBASE, Promega

	8.22				0.65	
	3.43	2.46				
3PI				2.57		
		4.73			3.91	1.83

NX6MYV-5870 FBI PopStats

	8.5911	0	0	0	0.67222	
	3.9032	3.0084	0	0	0	0
3PI	0	0	0	2.6157		0
	0	5.0839	0		5.2301	1.9051
	0					

TABLE 2

WebCode-Test	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

Q2KLVE-5870 NIST-STRBASE

	8.5911	0		0	0.6722	2.1115
	3.9032	3.0084		0	0	0
3PI	0	0	0			0
	0	5.0839	0		5.2301	1.9051
	0					

QU8FDQ-5870 NIST-STRBASE

	12.0465	Not matched	Not matched	Not matched	0.7474	
	3.3911	2.1404	Not matched	Not matched	Not matched	Not matched
3PI	Not matched	Not matched	Not matched	3.3636		Not matched
	Not matched	7.2125	Not matched	Not matched	3.9846	2.1450
	Not matched					

RJQQ8N-5875 NIST-STRBASE

	7.62	0	0	0	.673	
	3.63	2.95	0	0	0	0
3PI	0	0	0	2.59		0
	0			0	4.92	1.91
	0					

TK2TUM-5875 NIST-STRBASE

	7.62	0.000	0.000	0.000	0.673	
	3.63	2.95	0.000	0.000	0.000	0.000
3PI	0.000	0.000	0.000	2.59		0.000
	0.000			0.000	4.92	1.91
	N/A					

TPY6VE-5870 FBI PopStats

	8.4175				0.65798	
	3.4530	2.4343				
3PI				3.1566		
					3.9620	1.8282

TXRJEQ-5870 NIST-STRBASE

	8.5911	0.0033	0.0028	0.0020	0.6722	
	3.9032	3.0084	0.0028	0.0028	0.0020	0.0040
3PI	0.0030	0.0010	0.0010	2.6157		0.0030
	0.0041			0.0064	5.2301	1.9051
	0.0030					

VYFRWJ-5870 ABIdent Caucasian (DNA VIEW)

		0		0	0.67	
	3.66	2.33			0	0
3PI	0	0	0			0
	0				4.31	1.87
	0					

TABLE 2

WebCode-Test	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

WZPW8M-5870 NIST-STRBASE

	9.702	0	0	0	0.6598	
	3.972	3.240	0	0	0	0
3PI	0	0	0	2.565		0
	0	4.984	0		5.128	1.868
	0					

XCUKFH-5870 NIST-STRBASE

	8.5910	0.0010	0.0028	0.0020	0.6722	
	3.9032	3.0084	0.0028	0.0028	0.0020	0.0040
3PI	0.0030	0.0010	0.0010	2.6157		0.0030
	0.0041			0.0064	5.2301	1.9051
	0.0030					

XUQAAQ-5870 NIST-STRBASE

	8.5910	0.0010	0.0028	0.0020	0.6722	
	3.9032	3.0084	0.0028	0.0028	0.0020	0.0040
3PI	0.0030	0.0010	0.0010	2.6157		0.0030
	0.0041			0.0064	5.2301	1.9051
	0.0030					

YDYRUU-5875 NIST-STRBASE

	6.8E+00	2.6E-03	8.8E-10	9.2E-04	6.7E-01	
	3.6E+00	2.7E+00	3.2E-05	1.6E-03	2.6E-05	1.2E-03
3PI	2.1E-03	5.6E-04	8.1E-04	2.6E+00		9.2E-04
	3.2,E-03			1.0E-07	4.6E+00	1.9E+00
	4.2E-04					

YQPL7N-5870 NIST-STRBASE

	8.5910	0.0010	0.0028	0.0020	0.6722	
	3.9032	3.0084	0.0028	0.0028	0.0020	0.0040
3PI	0.0030	0.0010	0.0010	2.6157		0.0030
	0.0041			0.0064	5.2301	1.9051
	0.0030					

ZEATFT-5870 NIST-STRBASE

	8.59	0	0	0	0.67	-
	3.90	3.00	0	0	0	0
3PI	0	0	0	2.62		0
	0	5.08	0	0	5.23	1.90
	0					

ZGG9PK-5870 NIST-STRBASE, NIST1036-caucasian

	6.88185	0	0	0	0.672457	
	3.40950	2.89968	0	0	0	0
3PI	0	0	0	2.55879		0
	0			0	4.66231	1.91380
	0					

TABLE 2

WebCode-Test	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 4PI - Paternity Index Results

2EX9QH-5870 Popstats NIST 2017

	8.5911	4.8780	2.0747	30.120	1.3444	
	1.9516	6.0168	1.6260	24.038	4.1494	3.1807
4PI	3.4060	1.6046	2.4728	1.3079		1.3885
	2.7980	2.5419	2.5075	0.0071476	5.2301	1.9051
	5.3879					

3D86RE-5870 FBI PopStats

	8.5911	4.8780	2.0747	30.120	1.3444	
	1.9516	6.0168	1.6260		4.1494	3.1807
4PI	3.4060	1.6046	2.4728	1.3079		1.3885
	2.7980	2.5419	2.5075		5.2301	1.9051
	5.3879					

4JNXFJ-5870 FBI PopStats, laboratory-specific database

		5.08		40.7	1.30	
	1.71	4.91			4.91	2.93
4PI	4.57	1.51	2.73			1.53
	2.85	2.36	2.36		3.91	1.83
	4.79					

4L8EFK-5870 NIST-STRBASE

	8.60	4.88	2.07	30.1	1.34	
	1.95	6.02	1.63	24.1	4.15	3.18
4PI	3.41	1.60	2.47			1.39
	2.80	2.54	2.51		5.23	1.91
	5.39					

4LHLYE-5870 FBI PopStats

	8.5911	4.8780	2.0747	30.120	1.3444	
	1.9516	6.0168	1.6260		4.1494	3.1807
4PI	3.4060	1.6046	2.4728	1.3079		1.3885
	2.7980	2.5419	2.5075		5.2301	1.9051
	5.3879					

4Y8GGZ-5870 FBI PopStats

	8.59	4.88	2.07	30.1	1.34	
	1.95	6.02	1.63		4.15	3.18
4PI	3.41	1.60	2.47	1.31		1.39
	2.80	2.54	2.51		5.23	1.91
	5.39					

66MNAN-5870 NIST-STRBASE

	8.5952	4.8784	2.0747	30.0833	1.3445	
	1.9514	6.0167	1.6261	24.0667	4.1494	3.1806
4PI	3.4057	1.6044	2.4726	1.3080		1.3885
	2.7984	2.5423	2.5069	0.0071	5.2319	1.9050
	5.3881					

TABLE 2

WebCode-Test	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 4PI - Paternity Index Results

6D6U9G-5875	FBI PopStats					
	8.5911	5.2411	2.0747	38.4615	1.3086	
	1.7265	4.9628	1.6260	24.0385	5.0251	2.9560
4PI	4.6685	1.5356	2.7609	1.3079		1.5305
	2.8818	2.5641	2.8249		3.9620	1.8282
	4.9020					
6PWEVY-5870	NIST-STRBASE					
	8.59	4.88	2.07	30.1	1.34	
	1.95	6.02	1.63		4.15	3.18
4PI	3.41	1.60	2.47	1.31		1.39
	2.80	2.54	2.51		5.23	1.91
	5.39					
764ZQ9-5875	NIST-STRBASE					
	7.62	4.62	1.99	19.3	1.33	
	1.88	5.58	1.59	omitted	3.70	3.02
4PI	3.31	1.52	2.45	1.33		1.40
	2.76			0.0238	4.92	1.91
	5.05					
7TRUDL-5875	FBI PopStats, Promega/NIST					
	8.22	5.08	1.98	40.5	1.3	--
	1.72	4.91	1.71	25.6	4.91	2.93
4PI	4.57	1.51	2.73	1.29		1.52
	2.85	2.36	2.43	--	3.91	1.83
	4.79					
8AA7MQ-5870	FBI PopStats					
	8.4175	5.1813	1.9055	40.323	1.3160	
	1.7265	4.8685	1.4854	20.161	4.9261	2.9274
4PI	4.8077	1.5659	2.7670	1.5783		1.5305
	2.8458			0.0071592	3.9620	1.8282
8BMMXJ-5875	laboratory specific database					
	8.595	4.511	2.075	57.364		
		4.563	1.622	24.067		3.144
4PI	3.327	1.797	2.302	1.308		
	2.925			2.535	4.418	
	4.606					
8GKU6Z-5870	NIST-STRBASE					
	8.5911	4.8780		30.1205	1.3444	2.1115
	1.9516	6.0168		24.0385	4.1494	3.1807
4PI	3.4060	1.6046	2.4728			1.3885
	2.7980	2.5419	2.5075		5.2301	1.9051
	5.3879					

TABLE 2

WebCode-Test	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 4PI - Paternity Index Results

8WFKJA-5870	[Location Identifying Database]					
		4.7170		50	1.3423	
	1.8369	4.6838			4.1051	3.3080
4PI	3.6738	1.5110	2.4402			1.5239
	2.9568				4.3630	1.8762
	6.0168					
8ZFMPY-5870	FBI PopStats					
	8.4175	5.1813	1.9055	40.3230	1.3160	
	1.7265	4.8685	1.4854	20.1610	4.9261	2.9274
4PI	4.8077	1.5659	2.7670	1.5783		1.5305
	2.8458			0.0071592	3.9620	1.8282
	5.0505					
9JLGWV-5870	FBI PopStats					
	8.4175	5.1813	1.9055	40.323	1.3160	
	1.7265	4.8685	1.4854	20.161	4.9261	2.9274
4PI	4.8077	1.5659	2.7670	1.5783		1.5305
	2.8458			0.0071592	3.9620	1.8282
	5.0505					
9R9RJH-5870	NIST-STRBASE					
	8.6	4.88	2.07	30.1	1.34	
	1.95	6.02	1.63	24.1	4.15	3.18
4PI	3.41	1.6	2.47	1.31		1.39
	2.8			0.0064	5.23	1.91
	N/A					
9VFXLW-5870	[Location Identifying Database]					
	7.11	4.71	1.80	24.0	1.41	
	2.02	5.39	1.71	22.0	3.73	3.47
4PI	4.40	1.62	2.39	1.59		1.58
	2.82			0.00730	4.36	1.87
	4.19					
A4299J-5870	NIST-STRBASE					
	8.59	4.88	2.07	29.77	1.34	
	1.95	6.02	1.63	24.05	4.15	3.18
4PI	3.40	1.61	2.47	1.31		1.39
	2.80			0.03	5.23	1.90
	5.39					
CDHPXV-5875	NIST-STRBASE					
	8.59	4.88	2.07	30.1	1.34	
	1.95	6.02	1.63	24.0	4.15	3.18
4PI	3.41	1.60	2.47	1.31		1.39
	2.80			0.00715	5.23	1.91
	5.39					

TABLE 2

WebCode-Test	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 4PI - Paternity Index Results

CPHFXV-5870	NIST-STRBASE					
	8.595	4.878		30.083	1.344	2.123
	1.951	6.016		24.066	4.149	3.180
4PI	3.405	1.604	2.472			1.388
	2.798	2.542	2.506		5.231	1.905
	5.388					
DMRFD6-5875	FBI PopStats					
	8.41	5.18	1.90	40.32	1.31	
	1.72	4.86	1.48	20.16	4.92	2.92
4PI	4.80	1.56	2.76	1.57		1.53
	2.84				3.96	1.82
	5.05					
EAWLG2-5875	FBI PopStats					
	8.42	5.18	1.91	40.32	1.32	
	1.73	4.87	1.49	20.16	4.93	2.93
4PI	4.81	1.57	2.77	1.58		1.53
	2.85				3.96	1.83
	5.05					
EE74DA-5870	NIST-STRBASE					
	8.5910	4.8780	2.0746	30.1204	1.3444	
	1.9516	6.0168	1.6260	24.0384	4.1493	3.1806
4PI	3.4059	1.6046	2.4727	1.3078		1.3885
	2.7979	2.5419	2.5075		5.2301	1.9051
	5.3879					
EMNBC2-5875	NIST-STRBASE					
	8.5911	4.8780	2.0747	30.1205	1.3444	
	1.9516	6.0168	1.6260	24.0385	4.1494	3.1807
4PI	3.4060	1.6046	2.4728	1.3079		1.3885
	2.7980			0.0081	5.2301	1.9051
	5.3879					
FHGK2E-5870	FBI PopStats, [Location Identifying Database]					
	8.5911	4.8780	2.0747	30.120	1.3444	2.1231
	1.9516	6.0168	6.6260	24.038	4.1494	3.1807
4PI	3.4060	1.6046	2.4728	1.3079		1.3885
	2.7980	2.5419	2.5075		5.2301	1.9051
	5.3879					
G8DLT6-5870	NIST-STRBASE					
	8.41	4.82	2.07	27.8	1.34	
	1.94	5.98	1.62	22.6	4.11	3.17
4PI	3.38	1.59	2.46	1.31		1.39
	2.78			0.0275	5.16	1.90
	5.32					

TABLE 2

WebCode-Test	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 4PI - Paternity Index Results

GWUAE7-5870	NIST-STRBASE					
	8.5910	4.8780	2.0746	30.1204	1.3444	
	1.9516	6.0168	1.6260	24.0384	4.1493	3.1806
4PI	3.4059	1.6046	2.4728	1.3078		1.3885
	2.7979			0.0064	5.2301	1.9051
	5.3879					
HCT9L2-5870	NIST-STRBASE					
	12.0482	5.9880	2.2046	50.0000	1.4950	
	1.6955	4.2808	1.8083	-	5.1813	3.8941
4PI	3.3738	1.8175	2.4486	1.6818		1.4510
	3.3967			0.0072	3.9841	2.1450
	5.2301					
JWY4TY-5875	Laboratory Specific Database					
	8.418	5.181	1.905	40.323	1.316	
	1.727	4.869	1.485	20.161	4.926	2.927
4PI	4.808	1.566	2.767	1.578		1.530
	2.846	2.405	3.157	0.007	3.962	1.828
	5.051					
KQ6LXJ-5870	FBI PopStats					
	8.4175	5.1813	1.9055	40.323	1.3160	-
	1.7265	4.8685	1.4854	20.161	4.9261	2.9274
4PI	4.8077	1.5659	2.7670	1.5783		1.5305
	2.8458	-	-	0.0071592	3.9620	1.8282
	5.0505					
KQEYWM-5870	NIST-STRBASE					
	12.048	5.9880	2.2046	54.348	1.4950	
	1.6955	4.2808	1.8083	40.000	5.1813	3.8941
4PI	3.3738	1.8175	2.4486	1.6818		1.4510
	3.3967	3.6075	3.1387		3.9841	2.1450
KXNUD4-5875	NIST-STRBASE					
	8.60	4.88	2.07	30.08	1.34	2.12
	1.95	6.02	1.63	24.07	4.15	3.18
4PI	3.41	1.60	2.47	1.31		1.39
	2.80	2.54	2.51		5.23	1.91
	5.39					
KYQWK7-5870	NIST-STRBASE					
	8.6	4.88	2.07	30.1	1.34	N/A
	1.95	6.02	1.63	24.1	4.15	3.18
4PI	3.41	1.6	2.47	1.31		1.39
	2.8	N/A	N/A	0.0064	5.23	1.91
	N/A					

TABLE 2

WebCode-Test	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 4PI - Paternity Index Results

L4QFMH-5870	FBI PopStats					
	8.4175	5.1813	1.9055	40.323	1.3160	
	1.7265	4.8685	1.4854	20.161	4.9261	2.9274
4PI	4.8077	1.5659	2.7670	1.5783		1.5305
	2.8458	2.4050	3.1566	0.0071592	3.9620	1.8282
	5.0505					
LD93DK-5870	NIST-STRBASE					
	8.59	4.88	2.07	30.1	1.34	
	1.95	6.02	1.63		4.15	3.18
4PI	3.41	1.60	2.47	1.31		1.39
	2.80	2.54	2.51		5.23	1.91
	5.39					
M6P4EZ-5870	local/state database					
	23.2558	9.7087	4.1667	23.2558	1.7637	
	2.7778	4.7619	1.5337	23.2558	2.5907	9.3458
4PI	2.9070	1.9120	2.2026	4.4643		1.0684
	3.3333			0.0064	2.2026	2.4510
	3.0675					
MZ449Z-5875	FBI PopStats, NIST-STRBASE, Promega					
	8.223	5.083	1.976	40.500	1.303	
	1.716	4.913	1.712	25.583	4.913	2.935
4PI	4.570	1.510	2.729	1.286		1.519
	2.848	2.363	2.431		3.913	1.825
	4.793					
MZD9FH-5870	NIST-STRBASE					
	8.5911	4.8780	2.0747	30.120	1.3444	
	1.9516	6.0168	1.6260		4.1494	3.1807
4PI	3.4060	1.6046	2.4728	1.3079		1.3885
	2.7980	2.5419	2.5075		5.2301	1.9051
	5.3879					
N4QFBU-5870	FBI PopStats					
	8.5911	4.8780	2.0747	30.120	1.3444	
	1.9516	6.0168	1.6260		4.1494	3.1807
4PI	3.4060	1.6046	2.4728	1.3079		1.3885
	2.7980	2.5419	2.5075		5.2301	1.9051
	5.3879					
NX6MYV-5870	FBI PopStats					
	8.5911	4.8780	2.0747	30.120	1.3444	
	1.9516	6.0168	1.6260	NA	4.1494	3.1807
4PI	3.4060	1.6046	2.4728	1.3079		1.3885
	2.7980	2.5419	2.5075		5.2301	1.9051
	5.3879					

TABLE 2

WebCode-Test	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 4PI - Paternity Index Results

NZLC4U-5875	FBI PopStats					
	8.4175	5.1813	1.9055	40.323	1.3160	
	1.7265	4.8685	1.4854	20.161	4.9261	2.9274
4PI	4.8077	1.5659	2.7670	1.5783		1.5305
	2.8458				3.9620	1.8282
	5.0505					
PPZKYH-5870	National Database					
	7.2287	4.4841		39.6856	1.4041	1.9341
	1.8383	5.2125		25.015	4.0416	3.3497
4PI	3.5786	1.6416	2.4047			1.5691
	2.7589	2.5126	2.7434		5.114	1.8594
	4.9434					
Q2KLVE-5870	NIST-STRBASE					
	8.5911	4.8780		30.1205	1.3444	2.1115
	1.9516	6.0168		24.0385	4.1494	3.1807
4PI	3.4060	1.6046	2.4728			1.3885
	2.7980	2.5419	2.5075		5.2301	1.9051
	5.3879					
QU8FDQ-5870	NIST-STRBASE					
	12.0465	5.9884	2.2042	54.5263	1.4949	
	1.6955	4.2809	1.8080	39.8461	5.1800	3.8947
4PI	3.3745	1.8175	2.4491	1.6818		1.4509
	3.3967	3.6062	3.1393	0.0071	3.9846	2.1450
	5.2323					
RAEWWX-5870	NIST-STRBASE					
	8.5910	4.8780	2.0746	30.1204	1.3444	
	1.9516	6.0168	1.6260	24.0384	4.1493	3.1806
4PI	3.4059	1.6046	2.4727	1.3078		1.3885
	2.7979	2.5419	2.5075		5.2301	1.9051
	5.3879					
RJQQ8N-5875	NIST-STRBASE					
	7.62	4.62	1.99	19.3	1.33	
	1.88	5.58	1.59	N/A	3.70	3.02
4PI	3.31	1.52	2.45	1.33		1.40
	2.76			.024	4.92	1.91
	5.05					
RYUMBP-5875	NIST-STRBASE					
	8.5952	4.8783	2.0747	30.0833	1.3445	
	1.9513	6.0166	1.6261	24.0666	4.1494	3.1806
4PI	3.4056	1.6044	2.4726	1.3079		1.3884
	2.7984	2.5422	2.5069		5.2318	1.9050
	5.3880					

TABLE 2

WebCode-Test	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 4PI - Paternity Index Results

TK2TUM-5875	NIST-STRBASE					
	7.62	4.62	1.99	19.3	1.33	
	1.88	5.58	1.59	N/A	3.70	3.02
4PI	3.31	1.52	2.45	1.33		1.40
	2.76			0.0238	4.92	1.91
	5.05					
TPY6VE-5870	FBI PopStats					
	8.4175	5.1813	1.9055	40.323	1.3160	
	1.7265	4.8685	1.4854	20.161	4.9261	2.9274
4PI	4.8077	1.5659	2.7670	1.5783		1.5305
	2.8458			0.0071592	3.9620	1.8282
	5.0505					
TXRJEQ-5870	NIST-STRBASE					
	8.5911	4.8780	2.0747	30.1205	1.3444	
	1.9516	6.0168	1.6260	24.0385	4.1494	3.1807
4PI	3.4060	1.6046	2.4728	1.3079		1.3885
	2.7980			0.0064	5.2301	1.9051
	5.3879					
UNQ8JB-5870	Popstats NIST 2017					
	8.5911	4.8780	2.0747	30.120	1.3444	
	1.9516	6.0168	1.6260	24.038	4.1494	3.1807
4PI	3.4060	1.6046	2.4728	1.3079		1.3885
	2.7980	2.5419	2.5075	0.0071476	5.2301	1.9051
	5.3879					
VYFRWJ-5870	ABIdent Caucasian (DNA VIEW)					
		4.66		43.7	1.34	
	1.83	4.66			4.06	3.3
4PI	3.64	1.5	2.43			1.52
	1/2840				4.31	1.87
	5.92					
W8QDHR-5870	NIST-STRBASE					
	8.5910	4.8780	2.0746	30.1204	1.3444	
	1.9516	6.0168	1.6260	24.0384	4.1493	3.1806
4PI	3.4059	1.6046	2.4727	1.3078		1.3885
	2.7979	2.5419	2.5075		5.2301	1.9051
	5.3879					
WZPW8M-5870	NIST-STRBASE					
	8.423	4.782	2.034	29.53	1.350	
	1.913	5.899	1.715	23.57	4.194	3.215
4PI	3.339	1.536	2.511	1.363		1.361
	3.298	2.719	2.458		5.428	1.868
	5.282					

TABLE 2

WebCode-Test	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 4PI - Paternity Index Results

XCUKFH-5870	NIST-STRBASE					
	8.5910	4.8780	2.0746	30.1204	1.3444	
	1.9516	6.0168	1.6260	24.0384	4.1493	3.1806
4PI	3.4059	1.6046	2.4728	1.3078		1.3885
	2.7979			0.0064	5.2301	1.9051
	5.3879					
XUQAAQ-5870	NIST-STRBASE					
	8.5910	4.8780	2.0746	30.1204	1.3444	
	1.9516	6.0168	1.6260	24.0384	4.1493	3.1806
4PI	3.4059	1.6046	2.4728	1.3078		1.3885
	2.7979			0.0064	5.2301	1.9051
	5.3879					
YCR8E8-5870	NIST-STRBASE					
	8.59	4.88	2.07	30.1	1.34	
	1.95	6.02	1.63		4.15	3.18
4PI	3.41	1.60	2.47	1.31		1.39
	2.80	2.54	2.51		5.23	1.91
	5.39					
YDYRUU-5875	NIST-STRBASE					
	6.7E+00	4.7E+00	2.0E+00	2.0E+01	1.3E+00	
	1.8E+00	5.4E+00	1.6E+00	1.7E+01	3.8E+00	3.1E+00
4PI	3.4E+00	1.6E+00	2.5E+00	1.3E+00		1.4E+00
	2.8E+00			4.0E-05	4.6E+00	1.9E+00
	5,1E+00					
YKN3C7-5870	FBI PopStats					
	8.5911	4.8780	2.0747	30.120	1.3444	
	1.9516	6.0168	1.6260		4.1494	3.1807
4PI	3.4060	1.6046	2.4728	1.3079		1.3885
	2.7980	2.5419	2.5075		5.2301	1.9051
	5.3879					
YLKGZN-5870	FBI PopStats					
	8.4175	5.1813	1.9055	40.323	1.3160	
	1.7265	4.8685	1.4854	20.161	4.9261	2.9274
4PI	4.8077	1.5659	2.7670	1.5783		1.5305
	2.8458			0.0071592	3.9620	1.8282
	5.0505					
YQPL7N-5870	NIST-STRBASE					
	8.5910	4.8780	2.0746	30.1204	1.3444	
	1.9516	6.0168	1.6260	24.0384	4.1493	3.1806
4PI	3.4059	1.6046	2.4728	1.3076		1.3885
	2.7979			0.0064	5.2301	1.9051
	5.3879					

TABLE 2

WebCode-Test	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 4PI - Paternity Index Results

ZEATFT-5870	NIST-STRBASE					
	8.59	4.88	2.07	30.12	1.34	-
	1.95	6.02	1.62	24.04	4.15	3.18
4PI	3.41	1.60	2.47	1.31		1.39
	2.80	2.54	2.51	0.004	5.23	1.90
	5.39					
ZGG9PK-5870	NIST-STRBASE, NIST1036-caucasian					
	6.86839	4.39299	1.91939	14.5435	1.31106	
	1.82069	5.21546	1.55311	13.0958	3.34817	2.87842
4PI	3.22634	1.45040	2.42661	1.34380		1.42046
	2.70575			0.0199275	4.66153	1.91351
	4.76983					
ZPBAA6-5870	NIST-STRBASE					
	8.59	4.88	2.07	30.1	1.34	
	1.95	6.02	1.63		4.15	3.18
4PI	3.41	1.60	2.47	1.31		1.39
	2.80	2.54	2.51		5.23	1.91
	5.39					

YSTR Amplification Kit(s) & Results

TABLE 3

WebCode-Test	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									
4Y8GGZ-5870	Yfiler®								
		14	15	12	28	23	10	11	13
3	16	10	11	19		14	15		
							22		11
66MNAN-5870	PowerPlex® Y 23 System								
		14	15,15	12	28	23	10	11	13
3	16	10	11	19		14	15		25
		11	13	21	17		22	12	11
68FEKA-5870	Yfiler®								
		14	15	12	28	23	10	11	13
3	16	10	11	19		14	15		
							22		11
6D6U9G-5875	PowerPlex® Y 23								
		14	15,15	12	28	23	10	11	13
3	16	10	11	19		14	15		25
		11	13	21	17		22	12	11
764ZQ9-5875	Yfiler®								
		14	15,15	12	28	23	10	11	13
3	16	10	11	19		14	15		
							22		11
8AA7MQ-5870	Yfiler® Plus								
	37,39	14	15	12	28	23	10	11	13
3	16	10	11	19	27	14	15	10	25
	40	11		21	17	20	22		11
8WFKJA-5870	Yfiler® Plus								
	37,39	14	15,15	12	28	23	10	11	13
3	16	10	11	19	27	14	15	10	25
	40	11		21	17	20	22		11
8ZFMPY-5870	Yfiler® Plus								
	37,39	14	15,15	12	28	23	10	11	13
3	16	10	11	19	27	14	15	10	25
	40	11		21	17	20	22		11
9JLGWV-5870	Yfiler® Plus								
	37,39	14	15,15	12	28	23	10	11	13
3	16	10	11	19	27	14	15	10	25
	40	11		21	17	20	22		11

TABLE 3

Item 3 - YSTR Results

WebCode-Test	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
9R9RJH-5870		Yfiler® Plus							
	37,39	14	15,15	12	28	23	10	11	13
3	16	10	11	19	27	14	15	10	25
	40	11		21	17	20	22		11
A4299J-5870		PowerPlex® Y 23							
		14	15,15	12	28	23	10	11	13
3	16	10	11	19		14	15		25
		11	13	21	17		22	12	11
CPHFXV-5870		Yfiler® Plus							
	37,39	14	15	12	28	23	10	11	13
3	16	10	11	19	27	14	15	10	25
	40	11		21	17	20	22		11
EMNBC2-5875		Yfiler®							
	37,39	14	15	12	28	23	10	11	13
3	16	10	11	19	27	14	15	10	25
	40	11		21	17	20	22		11
FHGK2E-5870		ARGUS Y28 QS							
		14	15,15	12	28	23	10	11	13
3	16	10	11	19	27	14	15	10	25
	40	11	13	21	17	20	22	12	11
G8DLT6-5870		Yfiler®							
		14	15	12	28	23	10	11	13
3	16	10	11	19		14	15		
							22		11
GWUAE7-5870		Yfiler®							
		14	15	12	28	23	10	11	13
3	16	10	11	19		14	15		
							22		11
KQ6LXJ-5870		Yfiler® Plus							
	37,39	14	15	12	28	23	10	11	13
3	16	10	11	19	27	14	15	10	25
	40	11	-	21	17	20	22	-	11
KYQWK7-5870		Yfiler® Plus, ForenSeq DNA Signature Prep							
	37,39	14	15,15	12	28	23	10	11	13
3	16	10	11	19	27	14	15	10	25
	40	11	13	21	17	20	22	12	11
LD93DK-5870		Yfiler®							
		14	15	12	28	23	10	11	13
3	16	10	11	19		14	15		
							22		11

TABLE 3

Item 3 - YSTR Results

WebCode-Test	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
M6P4EZ-5870		Yfiler®							
		14	15	12	28	23	10	11	13
3	16	10	11	19		14	15		
							22		11
MZD9FH-5870		Yfiler®							
		14	15	12	28	23	10	11	13
3	16	10	11	19		14	15		
							22		11
QU8FDQ-5870		PowerPlex® Y 23							
		14	15	12	28	23	10	11	13
3	16	10	11	19		14	15		25
		11	13	21	17		22	12	11
TPY6VE-5870		Yfiler® Plus							
	37,39	14	15	12	28	23	10	11	13
3	16	10	11	19	27	14	15	10	25
	40	11		21	17	20	22		11
TXRJEQ-5870		Yfiler®							
		14	15	12	28	23	10	11	13
3	16	10	11	19		14	15		
							22		11
XCUKFH-5870		Yfiler®							
		14	15	12	28	23	10	11	13
3	16	10	11	19		14	15		
							22		11
XUQAAQ-5870		Yfiler®							
		14	15	12	28	23	10	11	13
3	16	10	11	19		14	15		
							22		11
YDYRUU-5875		PowerPlex® Y							
		14	15	12	28	23	10	11	13
3	16	10	11	19		14	15		25
		11	13	21	17		22	12	11
YQPL7N-5870		Yfiler®							
		14	15	12	28	23	10	11	13
3	16	10	11	19		14	15		
							22		11
ZEATFT-5870		PowerPlex® Y 23							
		14	15,15	12	28	23	10	11	13
3	16	10	11	19		14	15		25
		11	13	21	17		22	12	11

TABLE 3

WebCode-Test	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									
ZPBAA6-5870		Yfiler®							
		14	15	12	28	23	10	11	13
3	16	10	11	19		14	15		
							22		11

TABLE 3

Item 4 - YSTR Results

Item	WebCode-Test / Amplification Kit	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
4Y8GGZ-5870	Yfiler®		14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		
								20		11
66MNAN-5870	PowerPlex® Y 23 System		14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		28
			11	12	17	20		20	9	11
68FEKA-5870	Yfiler®		14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		
								20		11
6D6U9G-5875	PowerPlex® Y 23		14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		28
			11	12	17	20		20	9	11
764ZQ9-5875	Yfiler®		14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		
								20		11
8AA7MQ-5870	Yfiler® Plus	37,39	14	13,18	13	30	23	10	11	12
4		14	10	11	20	25	15	17.2	11	28
		38	11		17	20	22	20		11
8WFKJA-5870	Yfiler® Plus	37,39	14	13,18	13	30	23	10	11	12
4		14	10	11	20	25	15	17.2	11	28
		38	11		17	20	22	20		11
8ZFMPY-5870	Yfiler® Plus	37,39	14	13,18	13	30	23	10	11	12
4		14	10	11	20	25	15	17.2	11	28
		38	11		17	20	22	20		11
9JLGWV-5870	Yfiler® Plus	37,39	14	13,18	13	30	23	10	11	12
4		14	10	11	20	25	15	17.2	11	28
		38	11		17	20	22	20		11
9R9RJH-5870	Yfiler® Plus	37,39	14	13,18	13	30	23	10	11	12
4		14	10	11	20	25	15	17.2	11	28
		38	11		17	20	22	20		11

TABLE 3

Item 4 - YSTR Results

Item	WebCode-Test / Amplification Kit	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
A4299J-5870	PowerPlex® Y 23		14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		28
			11	12	17	20		20	9	11
CPHFXV-5870	Yfiler® Plus									
		37,39	14	13,18	13	30	23	10	11	12
4		14	10	11	20	25	15	17.2	11	28
		38	11		17	20	22	20		11
EMNBC2-5875	Yfiler®									
		37,39	14	13,18	13	30	23	10	11	12
4		14	10	11	20	25	15	17.2	11	28
		38	11		17	20	22	20		11
FHGK2E-5870	ARGUS Y28 QS									
			14	13,18	13	30	23	10	11	12
4		14	10	11	20	25	15	17.2	11	28
		38	11	12	17	20	22	20	9	11
G8DLT6-5870	Yfiler®									
			14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		
								20		11
GWUAE7-5870	Yfiler®									
			14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		
								20		11
KQ6LXJ-5870	Yfiler® Plus									
		37,39	14	13,18	13	30	23	10	11	12
4		14	10	11	20	25	15	17.2	11	28
		38	11	-	17	20	22	20	-	11
KYQWK7-5870	Yfiler® Plus, ForenSeq DNA Signature Prep									
		37,39	14	13,18	13	30	23	10	11	12
4		14	10	11	20	25	15	17.2	11	28
		38	11	12	17	20	22	20	9	11
LD93DK-5870	Yfiler®									
			14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		
								20		11
M6P4EZ-5870	Yfiler®									
			14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		
								20		11

TABLE 3

Item 4 - YSTR Results

Item	WebCode-Test / Amplification Kit	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
MZD9FH-5870	Yfiler®		14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		
								20		11
QU8FDQ-5870	PowerPlex® Y 23		14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		28
			11	12	17	20		20	9	11
TPY6VE-5870	Yfiler® Plus									
		37,39	14	13,18	13	30	23	10	11	12
4		14	10	11	20	25	15	17.2	11	28
		38	11		17	20	22	20		11
TXRJEQ-5870	Yfiler®		14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		
								20		11
XCUKFH-5870	Yfiler®		14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		
								20		11
XUQAAQ-5870	Yfiler®		14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		
								20		11
YDYRUU-5875	PowerPlex® Y 23		14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		28
			11	12	17	20		20	9	11
YQPL7N-5870	Yfiler®		14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		
								20		11
ZEATFT-5870	PowerPlex® Y 23		14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		28
			11	12	17	20		20	9	11
ZPBAA6-5870	Yfiler®		14	13,18	13	30	23	10	11	12
4		14	10	11	20		15	17.2		
								20		11

Additional DNA & PI Results

TABLE 4

Locus	WebCode-Test	Item 1	Item 2	Item 3	Item 3 PI	Item 4	Item 4 PI
DXS10074	FHGK2E-5870	7-16	7-16	18	-1	16	4.275
DXS10079	FHGK2E-5870	18-20	18-18	17	-1	18	7.262
DXS10101	FHGK2E-5870	30.2-30.2	29.2-30.2	28.2	-1	29.2	12.6
DXS10103	FHGK2E-5870	19-19	16-19	18	-1	16	7.775
DXS10134	FHGK2E-5870	34-41.3	34-36.1	36	-1	36.1	5234
DXS10135	FHGK2E-5870	22-22	22-24	28	0	25	0.02427
DXS10146	FHGK2E-5870	25-28	28-28	27	-1	28	5.655
DXS10148	FHGK2E-5870	23-25.1	23-25.1	26.1	0.006411	23	4.581
DXS7132	FHGK2E-5870	13-15	13-14	14	-1	14	2.82
DXS7423	FHGK2E-5870	15-15	15-15	15	-1	15	2.655
DXS8378	FHGK2E-5870	12-12	11-12	12	-1	11	3.547
HPRTB	FHGK2E-5870	11-12	11-13	13	-1	13	2.762
QS1	8BMMXJ-5875	Q,Q	Q,Q	Q,Q		Q,Q	
QS2	8BMMXJ-5875	S,S	S,S	S,S		S,S	

Paternity DNA Statistics & Conclusions

TABLE 5

WebCode-Test	Chosen Biological Father	Combined Paternity Index	Probability of Paternity	Population Database Used
2EX9QH-5870	Item 4 - Alleged Father B	3,580,000,000	99.99	Popstats NIST 2017
3D86RE-5870	Item 4 - Alleged Father B	20,850,000,000	99.999999995204	FBI PopStats
4JNXFJ-5870	Item 4 - Alleged Father B	510,000,000	99.99%	FBI PopStats, laboratory-specific database
4L8EFK-5870	Item 4 - Alleged Father B	12743799251.868	99.99%	NIST-STRBASE
4LHLYE-5870	Item 4 - Alleged Father B	20,850,000,000	99.999999995204	FBI PopStats
4Y8GGZ-5870	Item 4 - Alleged Father B	20,000,000,000	99.9999%	FBI PopStats
66MNAN-5870	Item 4 - Alleged Father B	3571788888.99	99.9999999720028	NIST-STRBASE
68FEKA-5870	Item 4 - Alleged Father B			
6D6U9G-5875	Item 4 - Alleged Father B	686,774,543,872.3560	99.9999%	FBI PopStats
6PWEVY-5870	Item 4 - Alleged Father B	20 billion	99.9999%	NIST-STRBASE
764ZQ9-5875	Item 4 - Alleged Father B	24 million		NIST-STRBASE
7TRUDL-5875	Item 4 - Alleged Father B	478000000000	99.99999999	FBI PopStats, Promega/NIST
8AA7MQ-5870	Item 4 - Alleged Father B	118900000	99.9999991590	FBI PopStats
8BMMXJ-5875	Item 4 - Alleged Father B	7018994133	99.99999999%	laboratory specific database
8GKU6Z-5870	Item 4 - Alleged Father B	2.398E+11		NIST-STRBASE
8WFKJA-5870	Item 4 - Alleged Father B	111,192,895	99.9999991	[Location Identifying Database]
8ZFMPY-5870	Item 4 - Alleged Father B	600,400,000	99.9999998334	FBI PopStats
9JLGWV-5870	Item 4 - Alleged Father B	600,400,000	99.9999998334	FBI PopStats
9R9RJH-5870	Item 4 - Alleged Father B	9.35e7		NIST-STRBASE

TABLE 5 - Paternity DNA Statistics & Conclusions

WebCode-Test	Chosen Biological Father	Combined Paternity Index	Probability of Paternity	Population Database Used
9VFXLW-5870	Item 4 - Alleged Father B	331,127,818	99.99999990%	[Location Identifying Database]
A4299J-5870	Item 4 - Alleged Father B	2.2E+09		NIST-STRBASE
CDHPXV-5875	Item 4 - Alleged Father B	562400000	99.9999998222	NIST-STRBASE
CPHFXV-5870	Item 4 - Alleged Father B	240 billion		NIST-STRBASE
DMRFD6-5875	Item 4 - Alleged Father B	83,860,000,000	99.999999998808%	FBI PopStats
EAWLG2-5875	Item 4 - Alleged Father B	83,860,000,000	99.999999998808	FBI PopStats
EE74DA-5870	Item 4 - Alleged Father B	5.01E+11	99.9%	NIST-STRBASE
EMNBC2-5875	Item 4 - Alleged Father B	6.3663E+8	99.9999%	NIST-STRBASE
FHGK2E-5870	Item 4 - Alleged Father B	IP CODIS=1.064X10e12 IPcom=7.812x10e20	w CODIS= 99.9999999999; w com= 99.99999999 9999999999	FBI PopStats, [Location Identifying Database]
G8DLT6-5870	Item 4 - Alleged Father B	1.66e9	99.9999%	NIST-STRBASE
GWUAE7-5870	Item 4 - Alleged Father B	5.0304 E+08	99.9999%	NIST-STRBASE
HCT9L2-5870	Item 4 - Alleged Father B	1.26 x 10 ^ 8	99.9999%	NIST-STRBASE
JWY4TY-5875	Item 4 - Alleged Father B	4.6 Billion	99.99%	Laboratory Specific Database
KQ6LXJ-5870	Item 4 - Alleged Father B	600,400,000	99.9999998334	FBI PopStats
KQEYWM-5870	Item 4 - Alleged Father B	1,648,000,000,000		NIST-STRBASE
KXNUD4-5875	Item 4 - Alleged Father B	1.06E+12	99.9999999999%	NIST-STRBASE
KYQWK7-5870	Item 4 - Alleged Father B	9.35e7		NIST-STRBASE
L4QFMH-5870	Item 4 - Alleged Father B	4,558,000,000	99.99999997806	FBI PopStats
LD93DK-5870	Item 4 - Alleged Father B	20 billion	99.9999%	NIST-STRBASE
M6P4EZ-5870	Item 4 - Alleged Father B	9.1076E09	99.9999%	local/state database

TABLE 5 - Paternity DNA Statistics & Conclusions

WebCode-Test	Chosen Biological Father	Combined Paternity Index	Probability of Paternity	Population Database Used
MZ449Z-5875	Item 4 - Alleged Father B	478203000000	99.99999999%	FBI PopStats, NIST-STRBASE, Promega
MZD9FH-5870	Item 4 - Alleged Father B	20 billion	99.9999%	NIST-STRBASE
N4QFBU-5870	Item 4 - Alleged Father B	20,850,000,000	99.999999995204	FBI PopStats
NX6MYV-5870	Item 4 - Alleged Father B	20,850,000,000	99.999999995204	FBI PopStats
NZLC4U-5875	Item 4 - Alleged Father B	83,860,000,000	99.999999998808	FBI PopStats
PPZKYH-5870	Item 4 - Alleged Father B	220 billion	99.9999%	National Database
Q2KLVE-5870	Item 4 - Alleged Father B	2.398E+011		NIST-STRBASE
QF62XE-5870	Item 4 - Alleged Father B			FBI PopStats
QU8FDQ-5870	Item 4 - Alleged Father B	61,781,150,702	99.9999999983%	NIST-STRBASE
RAEWWX-5870	Item 4 - Alleged Father B	501 billion	99.9%	NIST-STRBASE
RJQQ8N-5875	Item 4 - Alleged Father B	24,000,000		NIST-STRBASE
RYUMBP-5875	Item 4 - Alleged Father B	501,444,644,415	99.9999999998%	NIST-STRBASE
TK2TUM-5875	Item 4 - Alleged Father B	24,000,000		NIST-STRBASE
TPY6VE-5870	Item 4 - Alleged Father B	118,900,000	99.9999991590	FBI PopStats
TXRJEQ-5870	Item 4 - Alleged Father B	5.0401E+08	99.9999%	NIST-STRBASE
UNQ8JB-5870	Item 4 - Alleged Father B	3.58 billion	99.99%	Popstats NIST 2017
V9QUHK-5870	Item 4 - Alleged Father B			
VYFRWJ-5870	Item 4 - Alleged Father B	21200	99.995%	ABIdent Caucasian (DNA VIEW)
W8QDHR-5870	Item 4 - Alleged Father B	501 billion	99.9%	NIST-STRBASE
WZPW8M-5870	Item 4 - Alleged Father B	2.41E+07	99.999%	NIST-STRBASE
XCUKFH-5870	Item 4 - Alleged Father B	5.0320 E+08	99.9999%	NIST-STRBASE

TABLE 5 - Paternity DNA Statistics & Conclusions

WebCode-Test	Chosen Biological Father	Combined Paternity Index	Probability of Paternity	Population Database Used
XUQAAQ-5870	Item 4 - Alleged Father B	5.0304 E+08	99.9999%	NIST-STRBASE
YCR8E8-5870	Item 4 - Alleged Father B	20 billion	99.9999%	NIST-STRBASE
YDYRUU-5875	Item 4 - Alleged Father B	6.2E+05	99.9998%	NIST-STRBASE
YKN3C7-5870	Item 4 - Alleged Father B	20,850,000,000	99.999999995204	FBI PopStats
YLKGZN-5870	Item 4 - Alleged Father B	600,400,000	99.9999998334	FBI PopStats
YQPL7N-5870	Item 4 - Alleged Father B	5.0304E+08	99.9999%	NIST-STRBASE
ZEATFT-5870	Item 4 - Alleged Father B	2205803543.71902	99.999999954665	NIST-STRBASE
ZGG9PK-5870	Item 4 - Alleged Father B	1.02201E8	99.999999021536%	NIST-STRBASE, NIST1036-caucasian
ZPBAA6-5870	Item 4 - Alleged Father B	20 billion	99.9999%	NIST-STRBASE

Paternity DNA Statistics Response Summary	Participants: 69
Which of the alleged fathers cannot be excluded as the biological parent of Item 2?	
Responses: Item 3 - Alleged Father A	0
Item 4 - Alleged Father B	69
Inconclusive	0
No Response	0

Kinship Likelihood Ratio Results

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D1S1656	4Y8GGZ-5870	(1+p)/4p	p=12	2.400
	66MNAN-5870	(1+p)/4p	p=12	2.3996
	6D6U9G-5875	(1+p)/4p	p=12	2.3996
	6PWEVY-5870	(1+p)/4p	p=12	2.400
	764ZQ9-5875	*	*	2.137
	7TRUDL-5875	(1+p)/4p	p=0.1163	2.3996
	8ZFMPY-5870	(0.25a+0.25a^2)/a^2	A=12 B=15.3	2.39961
	9JLGWV-5870	(0.5a+0.5ab)/2ab	a=15.3 b=12	2.3996
	A4299J-5870	(1+p)/4p	p = 12	2.399
	CPHFXV-5870	(Z1/2pa)+Z0	a=12	2.39961307
	EMNBC2-5875	1+p/4p	p=12	2.3996
	FHGK2E-5870	(1+p)/4p	p=12	2.3996
	G8DLT6-5870	(1+p)/4p	p = 12	2.3996
	GWUAE7-5870	(1+p)/4p	p=12	2.3996
	HCT9L2-5870	(1+p)/4p	p=12	2.3996
	KQ6LXJ-5870	.25/a+0.25	a=12	2.3996
	KXNUD4-5875	(1+p)/4p	p=12	2.400
	LD93DK-5870	(1+p)/4p	p=12	2.400
	M6P4EZ-5870	(1+p)/4p	p=12	2.3996
	MZD9FH-5870	(1+p)/4p	p=12	2.3996
	PPZKYH-5870	(1+p)/4p	p=12	2.3996
	QU8FDQ-5870	(1+p)/4p	p=12	2.3996
	RJQQ8N-5875			2.137

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D1S1656	RYUMBP-5875			2.3988
	TK2TUM-5875			2.137
	TXRJEQ-5870	(1+p)/4p	p = 12	2.3996
	WZPW8M-5870	(1+p)/4p	p = 12 q = 15.3	2.400
	XCUKFH-5870	(1+p)/4p	p=12	2.3996
	XUQAAQ-5870	(1+p)/4p	p=12	2.3996
	YCR8E8-5870	(1+p)/4p	p=12	2.400
	YDYRUU-5875	1+p/4p	p = 12	2.400
	YLKGZN-5870	[(0+a/4+a^2/4)]/(a^2)	a:12	2.3996
	YQPL7N-5870	(1+p)/4p	p=12	2.3996
	ZEATFT-5870	p12(1+p15.3)/4	p12=12 p15.3=15.3	0.030767165
	ZGG9PK-5870	(1+p)/4p	p=12	2.3996
	ZPBAA6-5870	(1+p)/4p	p=12	2.400

Statistical Analysis Summary of D1S1656 **Likelihood Ratio Mode: 2.3996**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D2S1338	4Y8GGZ-5870	(1+2p)/8p	p=22	3.863
	66MNAN-5870	(1+2p)/8p	p=22	3.8627
	6D6U9G-5875	(1+2q)/8q	q=22	3.8627
	6PWEVY-5870	(1+2q)/8q	q=22	3.863
	764ZQ9-5875	*	*	3.125
	7TRUDL-5875	(1+2t)/8t	t=0.0346	3.8627
	8ZFMPY-5870	(0.25a+0.5ac)/2ac	A=20 B=18 C=22	3.86271
	9JLGWV-5870	(0.25a+0.5ac)/2ac	a=20 c=22	3.8627
	A4299J-5870	(1+2p)/8p	p = 22	3.860
	CPHFXV-5870	(Z1/4pa)+Z0	a=22	3.862716763
	EMNBC2-5875	1+2p/8p	p=22	3.8627
	FHGK2E-5870	(1+2p)/8p	p=22	3.8627
	G8DLT6-5870	(1+2t)/8t	t = 22	3.8627
	GWUAE7-5870	(1+2p)/8p	p=22	3.8627
	HCT9L2-5870	(1+2p)/8p	p=22	3.8627
	KQ6LXJ-5870	1/(8a)+0.25	a=22	3.8627
	KXNUD4-5875	(1+2p)/8p	p=22	3.863
	LD93DK-5870	(1+2p)/8p	p=22	3.863
	M6P4EZ-5870	(1+2p)/8p	p=22	3.8627
	MZD9FH-5870	(1+2p)/8p	p=22	3.8627
	PPZKYH-5870	(1+2p)/8p	p=22	3.8627
	QU8FDQ-5870	(1+2p)/8p	p=22	3.8627
	RJQQ8N-5875			3.125
	RYUMBP-5875			3.8600

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D2S1338	TK2TUM-5875			3.125
	TXRJEQ-5870	(1+2p)/8p	p = 22	3.8627
	WZPW8M-5870	(1+2r)/8r	p = 18 q = 20 r =22	3.863
	XCUKFH-5870	(1+2p)/8p	p=22	3.8627
	XUQAAQ-5870	(1+2p)/8p	p=22	3.8627
	YCR8E8-5870	(1+2p)/8p	p=22	3.863
	YDYRUU-5875	1+2p/8p	p = 22	3.863
	YLKGZN-5870	[(0+c/4+2bc/4)]/(2bc)	b:22 c:18	3.8627
	YQPL7N-5870	(1+2p)/8p	p=22	3.8627
	ZEATFT-5870	p18(1+2p22)/4	p18=18 p22=22	0.01961982
	ZGG9PK-5870	(1+2p)/8p	p=22	3.8627
	ZPBAA6-5870	(1+2p)/8p	p=22	3.863

Statistical Analysis Summary of D2S1338 **Likelihood Ratio Mode: 3.8627**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D2S441	4Y8GGZ-5870	(1+p)/4p	p=11	0.9778
	66MNAN-5870	(1+p)/4p	p=11	0.9778
	6D6U9G-5875	(1+p)/4p	p=11	0.9778
	6PWEVY-5870	(1+q)/4q	q=11	0.9778
	764ZQ9-5875	*	*	0.9589
	7TRUDL-5875	(1+q)/4q	q=0.3435	0.9778
	8ZFMPY-5870	(0.25a+0.25a^2)/a^2	A=11 B=10	0.97780
	9JLGWV-5870	(0.25a+0.25a^2)/a^2	a=11	0.97780
	A4299J-5870	(1+p)/4p	p = 11	0.978
	CPHFXV-5870	(Z1/2pa)+Z0	a=11	0.977802038
	EMNBC2-5875	1+p/4p	p=11	0.9778
	FHGK2E-5870	(1+p)/4p	p=11	0.9778
	G8DLT6-5870	(1+q)/4q	q = 11	0.9778
	GWUAE7-5870	(1+p)/4p	p=11	0.9778
	HCT9L2-5870	(1+p)/4p	p=11	0.9778
	KQ6LXJ-5870	.25/a+0.25	a=11	0.9778
	KXNUD4-5875	(1+p)/4p	p=11	0.978
	LD93DK-5870	(1+p)/4p	p=11	0.9778
	M6P4EZ-5870	(1+p)/4p	p=11	0.9778
	MZD9FH-5870	(1+p)/4p	p=11	0.9778
	PPZKYH-5870	(1+p)/4p	p=11	0.9778
	QU8FDQ-5870	(1+p)/4p	p=11	0.9778
	RJQQ8N-5875			.9589
	RYUMBP-5875			0.9778

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D2S441	TK2TUM-5875			0.9589
	TXRJEQ-5870	(1+p)/4p	p = 11	0.9778
	WZPW8M-5870	(1+q)/4q	p = 10 q = 11	0.9778
	XCUKFH-5870	(1+p)/4p	p=11	0.9778
	XUQAAQ-5870	(1+p)/4p	p=11	0.9778
	YCR8E8-5870	(1+p)/4p	p=11	0.9778
	YDYRUU-5875	1+p/4p	p = 11	0.9778
	YLKGZN-5870	[(0+b/2+ab/2)]/(2ab)	a:11 b:10	0.9778
	YQPL7N-5870	(1+p)/4p	p=11	0.9778
	ZEATFT-5870	p10(1+p11)/2	p10=10 p11=11	0.141403375
	ZGG9PK-5870	(1+p)/4p	p=11	0.9778
	ZPBAA6-5870	(1+p)/4p	p=11	0.9778

Statistical Analysis Summary of D2S441 **Likelihood Ratio Mode: 0.9778**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D3S1358	4Y8GGZ-5870	1/4		0.2500
	66MNAN-5870	1/4		0.2500
	6D6U9G-5875	1/4		0.2500
	6PWEVY-5870	0.5pq/2pq	p=15 q=17	0.2500
	764ZQ9-5875	*	*	0.2500
	7TRUDL-5875	1/4	--	0.2500
	8ZFMPY-5870	0.25(ab)/(ab)=0.25	A=16 B=18 C=15 D=17	0.25000
	9JLGWV-5870	0.25(ab)/(ab)	a=16 b=18	0.25000
	A4299J-5870	1/4		0.250
	CPHFXV-5870	Z0		0.25
	EMNBC2-5875			0.25
	FHGK2E-5870	1/4		0.2500
	G8DLT6-5870	1/4	NA	0.2500
	GWUAE7-5870	1/4	-	0.2500
	HCT9L2-5870	1/4		0.2500
	KQ6LXJ-5870	0.25	n/a	0.25
	KXNUD4-5875	0.25		0.25
	LD93DK-5870	1/4		0.25
	M6P4EZ-5870	1/4		0.2500
	MZD9FH-5870	1/4		0.2500
	PPZKYH-5870	1/4		0.25
	QU8FDQ-5870	1/4		0.25
	RJQQ8N-5875			.2500
	RYUMBP-5875			0.2500

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D3S1358	TK2TUM-5875			0.2500
	TXRJEQ-5870	1/4		0.2500
	WZPW8M-5870	1/4	p = 15 q = 16 r =17 s = 18	0.2500
	XCUKFH-5870	1/4		0.2500
	XUQAAQ-5870	1/4		0.2500
	YCR8E8-5870	1/4		0.2500
	YDYRUU-5875	1/4		0.25
	YLKGZN-5870	[(0+0+cd/2)]/(2cd)	c:15 d:17	0.25
	YQPL7N-5870	1/4		0.2500
	ZEATFT-5870	p15p16/2	p15=15 p16=16	0.03250239
	ZGG9PK-5870	0.25		0.25
	ZPBAA6-5870	rs/2/2rs	r=15 s=17	0.2500

Statistical Analysis Summary of D3S1358	Likelihood Ratio Mode:	0.2500

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D5S818	4Y8GGZ-5870	(1+p)^2/4(p)^2	p=11	3.627
	66MNAN-5870	(1+2p+pp)/4pp	p=11	3.6271
	6D6U9G-5875	(1+2p+pp)/4pp	p=11	3.6271
	6PWEVY-5870	(1+p)(1+p)/4(p)(p)	p=11	3.627
	764ZQ9-5875	*	*	3.397
	7TRUDL-5875	(1+2p+pp)/4pp	p=0.356	3.6271
	8ZFMPY-5870	(0.25+0.5a+0.25a^2)/a^2	A=11	3.62709
	9JLGWV-5870	(0.25+0.5a+0.25a^2)/a^2	a=11	3.6271
	A4299J-5870	(1+p)^2/4p^2	p = 11	3.628
	CPHFXV-5870	(Z2/pa*pa)+(Z1/pa)+Z0	a=11	3.627098851
	EMNBC2-5875	1+2p+pp/4pp	p=11	3.6271
	FHGK2E-5870	(1+p)2/(2p)2	p=11	3.6271
	G8DLT6-5870	(1+2p+pp)/4pp	p = 11	3.6271
	GWUAE7-5870	(1+2p+pp)/4pp	p=11	3.6271
	HCT9L2-5870	(1+p)^2/4p^2	p=11	3.6271
	KQ6LXJ-5870	.25/(a^2)+.5/a+0.25	a=11	3.6270
	KXNUD4-5875	(1+2p+2p^2)/4p^2	p=11	3.627
	LD93DK-5870	(1+p)^2/4(p^2)	p=11	3.627
	M6P4EZ-5870	(1+2p+pp)/4pp	p=11	3.6271
	MZD9FH-5870	(1+p)(1+p)/4pp	p=11	3.6271
	PPZKYH-5870	(1+p)^2/4p^2	p=11	3.6270
	QU8FDQ-5870	(1+p)2/(2p)2	p=11	3.6271
	RJQQ8N-5875			3.397
	RYUMBP-5875			3.6278

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D5S818	TK2TUM-5875			3.397
	TXRJEQ-5870	(1+2p+pp)/4pp	p = 11	3.6271
	WZPW8M-5870	(8p^2+4(2+4p)/32p^2	p = 11	3.627
	XCUKFH-5870	(1+2p+pp)/4pp	p=11	3.6271
	XUQAAQ-5870	(1+2p+pp)/4pp	p=11	3.6271
	YCR8E8-5870	(1+p)^2/4(p^2)	p=11	3.627
	YDYRUU-5875	(1+p)^2/(2p)^2	p =11	3.627
	YLKGZN-5870	[(1/4+a/2+a^2/4)]/(a^2)	a:11	3.6271
	YQPL7N-5870	(1+2p+pp)/4pp	p=11	3.6271
	ZEATFT-5870	((1+p11)^2)/4	p11=11	0.459684
	ZGG9PK-5870	(1+p)^2/(2p)^2	p=11	3.6271
	ZPBAA6-5870	(1+p)2/4p2	p=11	3.627

Statistical Analysis Summary of D5S818 **Likelihood Ratio Mode: 3.6271**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D7S820	4Y8GGZ-5870	(1+2p)/8p	p=9	0.9958
	66MNAN-5870	(1+2p)/8p	p=9	0.9958
	6D6U9G-5875	(1+2q)/8q	q=9	0.9958
	6PWEVY-5870	(1+2p)/8p	p=9	0.9958
	764ZQ9-5875	*	*	0.9751
	7TRUDL-5875	(1+2q)/8q	q=0.1676	0.9958
	8ZFMPY-5870	(0.25a+0.5ac)/2ac	A=8 B=11 C=9	0.99582
	9JLGWV-5870	(0.25a+0.5ac)/2ac	a=8 c=9	0.99582
	A4299J-5870	(1+2p)/8p	p = 9	0.996
	CPHFXV-5870	(Z1/4pa)+Z0	a=9	0.995823389
	EMNBC2-5875	1+2p/8p	p=9	0.9958
	FHGK2E-5870	(1+2p)/8p	p=9	0.9958
	G8DLT6-5870	(1+2q)/8q	q = 9	0.9958
	GWUAE7-5870	(1+2p)/8p	p=9	0.9958
	HCT9L2-5870	(1+2p)/8p	p=9	0.9958
	KQ6LXJ-5870	1/(8a)+0.25	a=9	0.9958
	KXNUD4-5875	(1+2p)/8p	p=9	0.996
	LD93DK-5870	(1+2p)/8p	p=9	0.9958
	M6P4EZ-5870	(1+2p)/8p	p=9	0.9958
	MZD9FH-5870	(1+2p)/8p	p=9	0.9958
	PPZKYH-5870	(1+2p)/8p	p=9	0.9958
	QU8FDQ-5870	(1+2p)/8p	p=9	0.9958
	RJQQ8N-5875			.9751
	RYUMBP-5875			0.9959

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D7S820	TK2TUM-5875			0.9751
	TXRJEQ-5870	(1+2p)/8p	p = 9	0.9958
	WZPW8M-5870	(1+2r)/8r	p = 11 q =8 r = 9	0.9958
	XCUKFH-5870	(1+2p)/8p	p=9	0.9958
	XUQAAQ-5870	(1+2p)/8p	p=9	0.9958
	YCR8E8-5870	(1+2p)/8p	p=9	0.9958
	YDYRUU-5875	1+2p/8p	p = 9	0.9958
	YLKGZN-5870	[(0+c/4+2bc/4)]/(2bc)	b:9 c:11	0.9958
	YQPL7N-5870	(1+2p)/8p	p=9	0.9958
	ZEATFT-5870	p11(1+2p9)/4	p11=11 p9=9	0.068429
	ZGG9PK-5870	(1+2p)/8p	p=9	0.99582
	ZPBAA6-5870	(1+2p)/8p	p=9	0.9958

Statistical Analysis Summary of D7S820 **Likelihood Ratio Mode: 0.9958**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D8S1179	4Y8GGZ-5870	(1+2p)/8p	p=12	0.9958
	66MNAN-5870	(1+2p)/8p	p=12	0.9958
	6D6U9G-5875	(1+2p)/8p	p=12	0.9958
	6PWEVY-5870	(1+2p)/8p	p=12	0.9958
	764ZQ9-5875	*	*	0.9752
	7TRUDL-5875	(1+2p)/8p	p=0.1676	0.9958
	8ZFMPY-5870	(0.25b+0.5ab)/2ab	A=12 B=15 C=14	0.99582
	9JLGWV-5870	(0.25b+0.5ab)/2ab	a=12 b=15	0.99582
	A4299J-5870	(1+2p)/8p	p = 12	0.996
	CPHFXV-5870	(Z1/4pa)+Z0	a=12	0.995823389
	EMNBC2-5875	1+2p/8p	p=12	0.9958
	FHGK2E-5870	(1+2p)/8p	p=12	0.9958
	G8DLT6-5870	(1+2p)/8p	p = 12	0.9958
	GWUAE7-5870	(1+2p)/8p	p=12	0.9958
	HCT9L2-5870	(1+2p)/8p	p=12	0.9958
	KQ6LXJ-5870	1/(8a)+0.25	a=12	0.9958
	KXNUD4-5875	(1+2p)/8p	p=12	0.996
	LD93DK-5870	(1+2p)/8p	p=12	0.9958
	M6P4EZ-5870	(1+2p)/8p	p=12	0.9958
	MZD9FH-5870	(1+2p)/8p	p=12	0.9958
	PPZKYH-5870	(1+2p)/8p	p=12	0.9958
	QU8FDQ-5870	(1+2p)/8p	p=12	0.9958
	RJQQ8N-5875			.9752
	RYUMBP-5875			0.9959

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D8S1179	TK2TUM-5875			0.9752
	TXRJEQ-5870	(1+2p)/8p	p = 12	0.9958
	WZPW8M-5870	(1+2p)/8p	p = 12 q = 14 r = 15	0.9958
	XCUKFH-5870	(1+2p)/8p	p=12	0.9958
	XUQAAQ-5870	(1+2p)/8p	p=12	0.9958
	YCR8E8-5870	(1+2p)/8p	p=12	0.9958
	YDYRUU-5875	1+2p/8p	p = 12	0.9958
	YLKGZN-5870	[(0+c/4+2ac/4)]/(2ac)	a:12 c:14	0.9958
	YQPL7N-5870	(1+2p)/8p	p=12	0.9958
	ZEATFT-5870	p14(1+2p12)/4	p14=14 p12=12	0.05547756
	ZGG9PK-5870	(1+2p)/8p	p=12	0.99582
	ZPBAA6-5870	(1+2p)/8p	p=12	0.9958

Statistical Analysis Summary of D8S1179 **Likelihood Ratio Mode: 0.9958**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D10S1248	4Y8GGZ-5870	(1+p)/4p	p=14	1.089
	66MNAN-5870	(1+p)/4p	p=14	1.0895
	6D6U9G-5875	(1+p)/4p	p=14	1.0895
	6PWEVY-5870	(1+q)/4q	q=14	1.089
	764ZQ9-5875	*	*	1.061
	7TRUDL-5875	(1+q)/4q	q=0.2978	1.0895
	8ZFMPY-5870	(0.25a+0.25a^2)/a^2	A=14 B=13	1.08948
	9JLGWV-5870	(0.25a+0.25a^2)/a^2	a=14	1.0895
	A4299J-5870	(1+p)/4p	p = 14	1.090
	CPHFXV-5870	(Z1/2pa)+Z0	a=14	1.08948959
	EMNBC2-5875	1+p/4p	p=14	1.0895
	FHGK2E-5870	(1+p)/4p	p=14	1.0895
	G8DLT6-5870	(1+q)/4q	q = 14	1.0895
	GWUAE7-5870	(1+p)/4p	p=14	1.0894
	HCT9L2-5870	(1+p)/4p	p=14	1.0895
	KQ6LXJ-5870	.25/a+0.25	a=14	1.0894
	KXNUD4-5875	(1+p)/4p	p=14	1.089
	LD93DK-5870	(1+p)/4p	p=14	1.089
	M6P4EZ-5870	(1+p)/4p	p=14	1.0895
	MZD9FH-5870	(1+p)/4p	p=14	1.0895
	PPZKYH-5870	(1+p)/4p	p=14	1.0894
	QU8FDQ-5870	(1+p)/4p	p=14	1.0895
	RJQQ8N-5875			1.061
	RYUMBP-5875			1.0895

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D10S1248	TK2TUM-5875			1.061
	TXRJEQ-5870	(1+p)/4p	p = 14	1.0895
	WZPW8M-5870	(1+q)/4q	p = 13 q = 14	1.089
	XCUKFH-5870	(1+p)/4p	p=14	1.0894
	XUQAAQ-5870	(1+p)/4p	p=14	1.0894
	YCR8E8-5870	(1+p)/4p	P=14	1.089
	YDYRUU-5875	1+p/4p	p = 14	1.089
	YLKGZN-5870	[(0+b/2+ab/2)]/(2ab)	a:14 b:13	1.0895
	YQPL7N-5870	(1+p)/4p	p=14	1.0894
	ZEATFT-5870	p13p14/2	p13=13 p14=14	0.04578675
	ZGG9PK-5870	(1+p)/4p	p=14	1.0895
	ZPBAA6-5870	(1+p)/4p	p=14	1.089

Statistical Analysis Summary of D10S1248 **Likelihood Ratio Mode: 1.0895**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D12S391	4Y8GGZ-5870	(1+2p)/8p	p=17	1.231
	66MNAN-5870	(1+2p)/8p	p=17	1.2312
	6D6U9G-5875	(1+2p)/8p	p=17	1.2312
	6PWEVY-5870	(1+2p)/8p	p=17	1.231
	7TRUDL-5875	(1+2p)/8p	p=0.1274	1.2312
	8ZFMPY-5870	(0.25b+0.5ab)/2ab	A=17 B=20 C=18	1.23116
	9JLGWV-5870	(0.25b+0.5ab)/2ab	a=17 b=20	1.2312
	A4299J-5870	(1+2p)/8p	p = 17	1.231
	CPHFXV-5870	(Z1/4pa)+Z0	a=17	1.231161695
	EMNBC2-5875	1+2p/8p	p=17	1.2312
	FHGK2E-5870	(1+2p)/8p	p=17	1.2312
	G8DLT6-5870	(1+2p)/8p	p = 17	1.2312
	GWUAE7-5870	(1+2p)/8p	p=17	1.2311
	KQ6LXJ-5870	1/(8a)+0.25	a=17	1.2311
	KXNUD4-5875	(1+2p)/8p	p=17	1.231
	LD93DK-5870	(1+2p)/8p	p=17	1.231
	M6P4EZ-5870	(1+2p)/8p	p=17	1.2312
	MZD9FH-5870	(1+2p)/8p	p=17	1.2312
	PPZKYH-5870	(1+2p)/8p	p=17	1.2311
	QU8FDQ-5870	(1+2p)/8p	p=17	1.2312
	RJQQ8N-5875			1.187
	RYUMBP-5875			1.2310
	TK2TUM-5875			1.187
	TXRJEQ-5870	(1+2p)/8p	p = 17	1.2312

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D12S391	WZPW8M-5870	(1+2p)/8p	p = 17 q = 18 r = 20	1.231
	XCUKFH-5870	(1+2p)/8p	p=17	1.2311
	XUQAAQ-5870	(1+2p)/8p	p=17	1.2311
	YCR8E8-5870	(1+2p)/8p	p=17	1.231
	YDYRUU-5875	1+2p/8p	p = 17	1.231
	YLKGZN-5870	[(0+c/4+2ac/4)]/(2ac)	a:17 c:18	1.2312
	YQPL7N-5870	(1+2p)/8p	p=17	1.2311
	ZEATFT-5870	p18(1+2p17)4	p18=18 p17=17	0.05386229
	ZGG9PK-5870	(1+2p)/8p	p=17	1.2312
	ZPBAA6-5870	(1+2p)/8p	p=17	1.231

Statistical Analysis Summary of D12S391 **Likelihood Ratio Mode: 1.2312**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D13S317	4Y8GGZ-5870	(1+p)/4p	p=11	1.018
	66MNAN-5870	(1+p)/4p	p=11	1.0180
	6D6U9G-5875	(1+p)/4p	p=11	1.0180
	6PWEVY-5870	(1+q)/4q	q=11	1.018
	764ZQ9-5875	*	*	0.9957
	7TRUDL-5875	(1+r)/4r	r=0.3255	1.0180
	8ZFMPY-5870	(0.25a+0.25a^2)/a^2	A=11 B=9	1.01804
	9JLGWV-5870	(0.25a+0.25a^2)/a^2	a=11	1.0180
	A4299J-5870	(1+p)/4p	p = 11	1.018
	CPHFXV-5870	(Z1/2pa)+Z0	a=11	1.018049155
	EMNBC2-5875	1+p/4p	p=11	1.0180
	FHGK2E-5870	(1+p)/4p	p=11	1.0180
	G8DLT6-5870	(1+r)/4r	r = 11	1.0180
	GWUAE7-5870	(1+p)/4p	p=11	1.0180
	HCT9L2-5870	(1+p)/4p	p=11	1.0180
	KQ6LXJ-5870	.25/a+0.25	a=11	1.0180
	KXNUD4-5875	(1+p)/4p	p=11	1.018
	LD93DK-5870	(1+p)/4p	p=11	1.018
	M6P4EZ-5870	(1+p)/4p	p=11	1.0180
	MZD9FH-5870	(1+p)/4p	p=11	1.0180
	PPZKYH-5870	(1+p)/4p	p=11	1.0180
	QU8FDQ-5870	(1+p)/4p	p=11	1.0180
	RJQQ8N-5875			.9957
	RYUMBP-5875			1.0181

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D13S317	TK2TUM-5875			0.9957
	TXRJEQ-5870	(1+p)/4p	p = 11	1.0180
	WZPW8M-5870	(1+p)/4p	p = 11 q = 9	1.018
	XCUKFH-5870	(1+p)/4p	p=11	1.0180
	XUQAAQ-5870	(1+p)/4p	p=11	1.0180
	YCR8E8-5870	(1+p)/4p	p=11	1.018
	YDYRUU-5875	1+p/4p	p = 11	1.018
	YLKGZN-5870	[(0+b/2+ab/2)]/(2ab)	a:11 b:9	1.0180
	YQPL7N-5870	(1+p)/4p	p=11	1.0180
	ZEATFT-5870	p9(1+p11)/2	p9=9 p11=11	0.0514294
	ZGG9PK-5870	(1+p)/4p	p=11	1.0180
	ZPBAA6-5870	(1+p)/4p	p=11	1.018

Statistical Analysis Summary of D13S317 **Likelihood Ratio Mode: 1.0180**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D16S539	4Y8GGZ-5870	(1+p+q+2pq)/8pq	p=9 q=11	5.550
	66MNAN-5870	(1+p+q+2pq)/8pq	p=9 q=11	5.5499
	6D6U9G-5875	(1+p+q+2pq)/8pq	p=9 q=11	5.5499
	6PWEVY-5870	(1+q+p+2pq)/8pq	p=9 q=11	5.550
	764ZQ9-5875	*	*	5.219
	7TRUDL-5875	(1+p+r+2pr)/8pr	p=0.1066 r=0.3144	5.5499
	8ZFMPY-5870	(0.25+0.25a+0.25b+0.5ab)/2ab	A=9 B=11	5.54985
	9JLGWV-5870	(0.25+0.25a+0.25b+0.5ab)/2ab	a=9 b=11	5.5499
	A4299J-5870	(1+p+q+2pq)/8pq	p = 9 q = 11	5.548
	CPHFXV-5870	((2*Z2)+Z1(pa+pb)/4(pa*pb))+Z0	a=9 b=11	5.549859406
	EMNBC2-5875	1+p+q+2pq/8pq	p=9; q=11	5.5499
	FHGK2E-5870	(1+p+q+2pq)/8pq	p=9 q=11	5.5499
	G8DLT6-5870	(1+p+r+2pr)/8pr	p = 9 r = 11	5.5499
	GWUAE7-5870	(1+p+q+2pq)/8pq	p=9 q=11	5.5498
	HCT9L2-5870	(1+p+q+2pq)/8pq	p=9 q=11	5.5499
	KQ6LXJ-5870	1/(8ab)+1/(8b)+1/(8a)+0.25	a=9 b=11	5.5498
	KXNUD4-5875	(1+p+q+2pq)/8pq	p=9 q=11	5.550
	LD93DK-5870	(1+p+q+2pq)/8pq	p=9 q=11	5.550
	M6P4EZ-5870	(1+p+q+2pq)/8pq	p=9 q=11	5.5499
	MZD9FH-5870	(1+p+q+2pq)/8pq	p=9 q=11	5.5499
	PPZKYH-5870	(1+p+q+2pq)/8pq	p=9 q=11	5.5498
	QU8FDQ-5870	(1+p+q+2pq)/8pq	p=9 q=11	5.5499
	RJQQ8N-5875			5.219

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D16S539	RYUMBP-5875			5.5476
	TK2TUM-5875			5.219
	TXRJEQ-5870	(1+p+q+2pq)/8pq	p = 9 q = 11	5.5499
	WZPW8M-5870	(1+p+q+2pq)/8pq	p = 11 q = 9	5.550
	XCUKFH-5870	(1+p+q+2pq)/8pq	p=9 q=11	5.5498
	XUQAAQ-5870	(1+p+q+2pq)/8pq	p=9 q=11	5.5498
	YCR8E8-5870	(1+p+q+2pq)/8pq	P=9 q=11	5.550
	YDYRUU-5875	1+p+q+2pq/8pq	p = 9 q = 11	5.550
	YLKGZN-5870	[(1/4+a+b/4+ab/2)]/(2ab)	a:9 b:11	5.5499
	YQPL7N-5870	(1+p+q+2pq)/8pq	p=9 q=11	5.5498
	ZEATFT-5870	(1+p9+p11+2p9p11)/4	p9=9 p11=11	0.37200752
	ZGG9PK-5870	1+p+q+2pq/8pq	p=9 q=11	5.5499
	ZPBAA6-5870	(1+p+q+2pq)/8pq	p=9 q=11	5.550

Statistical Analysis Summary of D16S539 **Likelihood Ratio Mode: 5.5499**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D18S51	4Y8GGZ-5870	(1+2p)/8p	p=18	1.861
	66MNAN-5870	(1+2p)/8p	p=18	1.8608
	6D6U9G-5875	(1+2q)/8q	q=18	1.8608
	6PWEVY-5870	(1+2q)/8q	q=18	1.861
	764ZQ9-5875	*	*	1.719
	7TRUDL-5875	(1+2v)/8v	v=0.0776	1.8608
	8ZFMPY-5870	(0.25a+0.5ac)/2ac	A=12 B=16 C=18	1.86082
	9JLGWV-5870	(0.25a+0.5ac)/2ac	a=12 c=18	1.8608
	A4299J-5870	(1+2p)/8p	p = 18	1.862
	CPHFXV-5870	(Z1/4pa)+Z0	a=18	1.860824742
	EMNBC2-5875	1+2p/8p	p=18	1.8608
	FHGK2E-5870	(1+2p)/8p	p=18	1.8608
	G8DLT6-5870	(1+2v)/8v	v = 18	1.8608
	GWUAE7-5870	(1+2p)/8p	p=18	1.8608
	HCT9L2-5870	(1+2p)/8p	p=18	1.8608
	KQ6LXJ-5870	1/(8a)+0.25	a=18	1.8608
	KXNUD4-5875	(1+2p)/8p	p=18	1.861
	LD93DK-5870	(1+2p)/8p	p=18	1.861
	M6P4EZ-5870	(1+2p)/8p	p=18	1.8608
	MZD9FH-5870	(1+2p)/8p	p=18	1.8608
	PPZKYH-5870	(1+2p)/8p	p=18	1.8608
	QU8FDQ-5870	(1+2p)/8p	p=18	1.8608
	RJQQ8N-5875			1.719
	RYUMBP-5875			1.8616

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D18S51	TK2TUM-5875			1.719
	TXRJEQ-5870	(1+2p)/8p	p = 18	1.8608
	WZPW8M-5870	(1+2r)/8r	p = 12 q = 16 r = 18	1.861
	XCUKFH-5870	(1+2p)/8p	p=18	1.8608
	XUQAAQ-5870	(1+2p)/8p	p=18	1.8608
	YCR8E8-5870	(1+2p)/8p	p=18	1.861
	YDYRUU-5875	1+2p/8p	p = 18	1.861
	YLKGZN-5870	[(0+c/4+2bc/4)]/(2bc)	b:18 c:16	1.86082
	YQPL7N-5870	(1+2p)/8p	p=18	1.8608
	ZEATFT-5870	p16(1+2p18)/4	p16=16 p18=18	0.04239584
	ZGG9PK-5870	(1+2p)/8p	p=18	1.8608
	ZPBAA6-5870	(1+2p)/8p	p=18	1.861

Statistical Analysis Summary of D18S51 **Likelihood Ratio Mode: 1.8608**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D19S433	4Y8GGZ-5870	(1+2p)/8p	p=14	0.5958
	66MNAN-5870	(1+2p)/8p	p=14	0.5958
	6D6U9G-5875	(1+2p)/8p	p=14	0.5958
	6PWEVY-5870	(1+2q)/8q	q=14	0.5958
	764ZQ9-5875	*	*	0.5970
	7TRUDL-5875	(1+2q)/8q	q=0.3615	0.5958
	8ZFMPY-5870	(0.25b+0.5ab)/2ab	A=14 B=16.2 C=13	0.59578
	9JLGWV-5870	(0.25a+0.5ac)/2ac	a=16.2 c=14	0.59578
	A4299J-5870	(1+2p)/8p	p = 14	0.596
	CPHFXV-5870	(Z1/4pa)+Z0	a=14	0.595781466
	EMNBC2-5875	1+2p/8p	p=14	0.5958
	FHGK2E-5870	(1+2p)/8p	p=14	0.5957
	G8DLT6-5870	(1+2q)/8q	q = 14	0.5958
	GWUAE7-5870	(1+2p)/8p	p=14	0.5957
	HCT9L2-5870	(1+2p)/8p	p=14	0.5958
	KQ6LXJ-5870	1/(8a)+0.25	a=14	0.5957
	KXNUD4-5875	(1+2p)/8p	p=14	0.596
	LD93DK-5870	(1+2p)/8p	p=14	0.5958
	M6P4EZ-5870	(1+2p)/8p	p=14	0.5958
	MZD9FH-5870	(1+2p)/8p	p=14	0.5958
	PPZKYH-5870	(1+2p)/8p	p=14	0.5957
	QU8FDQ-5870	(1+2p)/8p	p=14	0.5958
	RJQQ8N-5875			.5970
	RYUMBP-5875			0.5958

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D19S433	TK2TUM-5875			0.5970
	TXRJEQ-5870	(1+2p)/8p	p = 14	0.5958
	WZPW8M-5870	(1+2q)/8q	p = 13 q = 14 r = 16.2	0.5958
	XCUKFH-5870	(1+2p)/8p	p=14	0.5957
	XUQAAQ-5870	(1+2p)/8p	p=14	0.5957
	YCR8E8-5870	(1+2p)/8p	p=14	0.5958
	YDYRUU-5875	1+2p/8p	p = 14	0.5958
	YLKGZN-5870	[(0+c/4+2ac/4)]/(2ac)	a:14 c:13	0.5957
	YQPL7N-5870	(1+2p)/8p	p=14	0.5957
	ZEATFT-5870	p13(1+2p14)/4	p13=13 p14=14	0.1097551
	ZGG9PK-5870	(1+2p)/8p	p=14	0.59578
	ZPBAA6-5870	(1+2p)/8p	p=14	0.5958

Statistical Analysis Summary of D19S433 **Likelihood Ratio Mode: 0.5958**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D21S11	4Y8GGZ-5870	(1+2p)/8p	p=30	0.6925
	66MNAN-5870	(1+2p)/8p	p=30	0.6925
	6D6U9G-5875	(1+2q)/8q	q=30	0.6925
	6PWEVY-5870	(1+2q)/8q	q=30	0.6925
	764ZQ9-5875	*	*	0.6905
	7TRUDL-5875	(1+2s)/8s	s=0.2825	0.6925
	8ZFMPY-5870	(0.25a+0.5ac)/2ac	A=27 B=28 C=30	0.69248
	9JLGWV-5870	(0.25a+0.5ac)/2ac	a=27 c=30	0.69248
	A4299J-5870	(1+2p)/8p	p = 30	0.692
	CPHFXV-5870	(Z1/4pa)+Z0	a=30	0.692477876
	EMNBC2-5875	1+2p/8p	p=30	0.6925
	FHGK2E-5870	(1+2p)/8p	p=30	0.6924
	G8DLT6-5870	(1+2s)/8s	s = 30	0.6925
	GWUAE7-5870	(1+2p)/8p	p=30	0.6924
	HCT9L2-5870	(1+2p)/8p	p=30	0.6925
	KQ6LXJ-5870	1/(8a)+0.25	a=30	0.6924
	KXNUD4-5875	(1+2p)/8p	p=30	0.692
	LD93DK-5870	(1+2p)/8p	p=30	0.6925
	M6P4EZ-5870	(1+2p)/8p	p=30	0.6925
	MZD9FH-5870	(1+2p)/8p	p=30	0.6925
	PPZKYH-5870	(1+2p)/8p	p=30	0.6924
	QU8FDQ-5870	(1+2p)/8p	p=30	0.6925
	RJQQ8N-5875			.6905
	RYUMBP-5875			0.6924

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D21S11	TK2TUM-5875			0.6905
	TXRJEQ-5870	(1+2p)/8p	p = 30	0.6925
	WZPW8M-5870	(1+2r)/8r	p = 27 q = 28 r = 30	0.6925
	XCUKFH-5870	(1+2p)/8p	p=30	0.6924
	XUQAAQ-5870	(1+2p)/8p	p=30	0.6924
	YCR8E8-5870	(1+2p)/8p	p=30	0.6925
	YDYRUU-5875	1+2p/8p	p = 30	0.6925
	YLKGZN-5870	[(0+c/4+2bc/4)]/(2bc)	b:30 c:28	0.6925
	YQPL7N-5870	(1+2p)/8p	p=30	0.6924
	ZEATFT-5870	p28(1+2p30)/4	p28=28 p30=30	0.062326125
	ZGG9PK-5870	(1+2p)/8p	p=30	0.69248
	ZPBAA6-5870	(1+2p)/8p	p=30	0.6925

Statistical Analysis Summary of D21S11 **Likelihood Ratio Mode: 0.6925**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D22S1045	4Y8GGZ-5870	(1+p+q+2pq)/8pq	p=15 q=16	1.984
	66MNAN-5870	(1+p+q+2pq)/8pq	p=15 q=16	1.9837
	6D6U9G-5875	(1+p+q+2pq)/8pq	p=15 q=16	1.9837
	6PWEVY-5870	(1+q+p+2pq)/8pq	p=15 q=16	1.984
	764ZQ9-5875	*	*	1.980
	7TRUDL-5875	(1+p+q+2pq)/8pq	p=0.3213 q=0.3823	1.9837
	8ZFMPY-5870	(0.25+0.25a+0.25b+0.5ab)/2ab	A=15 B=16	1.98365
	9JLGWV-5870	(0.25+0.25a+0.25b+0.5ab)/2ab	a=15 b=16	1.9837
	A4299J-5870	(1+p+q+2pq)/8pq	p = 15 q = 16	1.984
	CPHFXV-5870	((2*Z2)+Z1(pa+pb)/4(pa*pb))+Z0	a=15 b=16	1.983654778
	EMNBC2-5875	1+p+q+2pq/8pq	p=15; q=16	1.9837
	FHGK2E-5870	(1+p+q+2pq)/8pq	p=15 q=16	1.9837
	G8DLT6-5870	(1+p+q+2pq)/8pq	p = 15 q = 16	1.9837
	GWUAE7-5870	(1+p+q+2pq)/8pq	p=15 q=16	1.9836
	HCT9L2-5870	(1+p+q+2pq)/8pq	p=15 q=16	1.9837
	KQ6LXJ-5870	1/(8ab)+1/(8b)+1/(8a)+0.25	a=15 b=16	1.9836
	KXNUD4-5875	(1+p+q+2pq)/8pq	p=15 q=16	1.984
	LD93DK-5870	(1+p+q+2pq)/8pq	p=15 p=16	1.984
	M6P4EZ-5870	(1+p+q+2pq)/8pq	p=15 q=16	1.9837
	MZD9FH-5870	(1+p+q+2pq)/8pq	p=15 q=16	1.9837
	PPZKYH-5870	(1+p+q+2pq)/8pq	p=15 q=16	1.9836
	QU8FDQ-5870	(1+p+q+2pq)/8pq	p=15 q=16	1.9837
	RJQQ8N-5875			1.980

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D22S1045	RYUMBP-5875			1.9836
	TK2TUM-5875			1.980
	TXRJEQ-5870	(1+p+q+2pq)/8pq	p = 15 q = 16	1.9837
	WZPW8M-5870	(1+p+q+2pq)/8pq	p = 15 q = 16	1.984
	XCUKFH-5870	(1+p+q+2pq)/8pq	p=15 q=16	1.9836
	XUQAAQ-5870	(1+p+q+2pq)/8pq	p=15 q=16	1.9836
	YCR8E8-5870	(1+p+q+2pq)/8pq	p=15 q=16	1.984
	YDYRUU-5875	1+p+q+2pq/8pq	p = 15 q = 16	1.984
	YLKGZN-5870	[(1/4+a+b/4+ab/2)]/(2ab)	a:15 b:16	1.9837
	YQPL7N-5870	(1+p+q+2pq)/8pq	p=15 q=16	1.9836
	ZEATFT-5870	(1+p15+p16+2p15p16)/4	p15=15 p16=16	0.487316495
	ZGG9PK-5870	1+p+q+2pq/8pq	p=15 q=16	1.9837
	ZPBAA6-5870	(1+p+q+2pq)/8pq	p=15 q=16	1.984

Statistical Analysis Summary of D22S1045 **Likelihood Ratio Mode: 1.9837**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
CSF1PO	4Y8GGZ-5870	(1+p+q+2pq)/8pq	p=11 q=12	2.126
	66MNAN-5870	(1+p+q+2pq)/8pq	p=11 q=12	2.1255
	6D6U9G-5875	(1+p+q+2pq)/8pq	p=11 q=12	2.1255
	6PWEVY-5870	(1+q+p+2pq)/8pq	p=11 q=12	2.126
	764ZQ9-5875	*	*	2.117
	7TRUDL-5875	(1+p+q+2pq)/8pq	p=0.3089 q=0.3601	2.1255
	8ZFMPY-5870	(0.25+0.25a+0.25b+0.5ab)/2ab	A=11 B=12	2.12553
	9JLGWV-5870	(0.25+0.25a+0.25b+0.5ab)/2ab	a=11 b=12	2.1255
	A4299J-5870	(1+p+q+2pq)/8pq	p = 11 q = 12	2.126
	CPHFXV-5870	((2*Z2)+Z1(pa+pb)/4(pa*pb))+Z0	a=11 b=12	2.125535635
	EMNBC2-5875	1+p+q+2pq/8pq	p=11; q=12	2.1255
	FHGK2E-5870	(1+p+q+2pq)/8pq	p=11 q=12	2.1255
	G8DLT6-5870	(1+p+q+2pq)/8pq	p = 11 q = 12	2.1255
	GWUAE7-5870	(1+p+q+2pq)/8pq	p=11 q=12	2.1255
	HCT9L2-5870	(1+p+q+2pq)/8pq	p=11 q=12	2.1255
	KQ6LXJ-5870	1/(8ab)+1/(8b)+1/(8a)+0.25	a=11 b=12	2.1255
	KXNUD4-5875	(1+p+q+2pq)/8pq	p=11 q=12	2.126
	LD93DK-5870	(1+p+q+2pq)/8pq	p=11 q=12	2.126
	M6P4EZ-5870	(1+p+q+2pq)/8pq	p=11 q=12	2.1255
	MZD9FH-5870	(1+p+q+2pq)/8pq	p=11 q=12	2.1255
	PPZKYH-5870	(1+p+q+2pq)/8pq	p=11 q=12	2.1255
	QU8FDQ-5870	(1+p+q+2pq)/8pq	p=11 q=12	2.1255
	RJQQ8N-5875			2.117

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
CSF1PO	RYUMBP-5875			2.1257
	TK2TUM-5875			2.117
	TXRJEQ-5870	(1+p+q+2pq)/8pq	p = 11 q = 12	2.1255
	WZPW8M-5870	(1+p+q+2pq)/8pq	p = 11 q = 12	2.126
	XCUKFH-5870	(1+p+q+2pq)/8pq	p=11 q=12	2.1255
	XUQAAQ-5870	(1+p+q+2pq)/8pq	p=11 q=12	2.1255
	YCR8E8-5870	(1+p+q+2pq)/8pq	p=11 q=12	2.126
	YDYRUU-5875	1+p+q+2pq/8pq	p =11 q = 12	2.126
	YLKGZN-5870	[(1/4+a+b/4+ab/2)]/(2ab)	a:11 b:12	2.1255
	YQPL7N-5870	(1+p+q+2pq)/8pq	p=11 q=12	2.1255
	ZEATFT-5870	(1+p11+p12+2p11p12)/4	p11=11 p12=12	0.472867445
	ZGG9PK-5870	1+p+q+2pq/8pq	p=11 q=12	2.1255
	ZPBAA6-5870	(1+p+q+2pq)/8pq	p=11 q=12	2.126

Statistical Analysis Summary of CSF1PO **Likelihood Ratio Mode: 2.1255**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
FGA	4Y8GGZ-5870	(1+2p)/8p	p=20	1.264
	66MNAN-5870	(1+2p)/8p	p=20	1.2638
	6D6U9G-5875	(1+2p)/8p	p=20	1.2638
	6PWEVY-5870	(1+2p)/8p	p=20	1.264
	764ZQ9-5875	*	*	1.216
	7TRUDL-5875	(1+2p)/8p	p=0.1233	1.2638
	8ZFMPY-5870	(0.25b+0.5ab)/2ab	A=20 B=23 C=26	1.26378
	9JLGWV-5870	(0.25a+0.5ac)/2ac	a=23 c=20	1.2638
	A4299J-5870	(1+2p)/8p	p = 20	1.264
	CPHFXV-5870	(Z1/4pa)+Z0	a=20	1.26378751
	EMNBC2-5875	1+2p/8p	p=20	1.2638
	FHGK2E-5870	(1+2p)/8p	p=20	1.2638
	G8DLT6-5870	(1+2p)/8p	p = 20	1.2638
	GWUAE7-5870	(1+2p)/8p	p=20	1.2637
	HCT9L2-5870	(1+2p)/8p	p=20	1.2638
	KQ6LXJ-5870	1/(8a)+0.25	a=20	1.2637
	KXNUD4-5875	(1+2p)/8p	p=20	1.264
	LD93DK-5870	(1+2p)/8p	p=20	1.264
	M6P4EZ-5870	(1+2p)/8p	p=20	1.2638
	MZD9FH-5870	(1+2p)/8p	p=20	1.2638
	PPZKYH-5870	(1+2p)/8p	p=20	1.2637
	QU8FDQ-5870	(1+2p)/8p	p=20	1.2638
	RJQQ8N-5875			1.216
	RYUMBP-5875			1.2640

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
FGA	TK2TUM-5875			1.216
	TXRJEQ-5870	(1+2p)/8p	p = 20	1.2638
	WZPW8M-5870	(1+2p)/8p	p = 20 q = 23 r = 26	1.264
	XCUKFH-5870	(1+2p)/8p	p=20	1.2637
	XUQAAQ-5870	(1+2p)/8p	p=20	1.2637
	YCR8E8-5870	(1+2p)/8p	p=20	1.264
	YDYRUU-5875	1+2p/8p	p = 20	1.264
	YLKGZN-5870	[(0+c/4+2ac/4)]/(2ac)	a:20 c:26	1.2638
	YQPL7N-5870	(1+2p)/8p	p=20	1.2637
	ZEATFT-5870	p26(1+2p20)/4	p20=20 p26=26	0.008196395
	ZGG9PK-5870	(1+2p)/8p	p=20	1.2638
	ZPBAA6-5870	(1+2p)/8p	p=20	1.264

Statistical Analysis Summary of FGA **Likelihood Ratio Mode: 1.2638**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
PentaD	4Y8GGZ-5870	(1+p+q+2pq)/8pq	p=9 q=13	4.317
	66MNAN-5870	(1+p+q+2pq)/8pq	p=9 q=13	4.3173
	6D6U9G-5875	(1+p+q+2pq)/8pq	p=9 q=13	4.3173
	6PWEVY-5870	(1+q+p+2pq)/8pq	p=9 q=13	4.317
	7TRUDL-5875	(1+p+t+2pt)/8pt	p=0.2216 t=0.1967	4.3173
	8ZFMPY-5870	(0.25+0.25a+0.25b+0.5ab)/2ab	A=9 B=13	4.31727
	9JLGWV-5870	(0.25+0.25a+0.25b+0.5ab)/2ab	a=9 b=13	4.3173
	A4299J-5870	(1+p+q+2pq)/8pq	p = 9 q = 13	4.318
	CPHFXV-5870	((2*Z2)+Z1(pa+pb)/4(pa*pb))+Z0	a=9 b=13	4.317279333
	EMNBC2-5875	1+p+q+2pq/8pq	p=9; q=13	4.3173
	FHGK2E-5870	(1+p+q+2pq)/8pq	p=9 q=13	4.3173
	G8DLT6-5870	(1+p+t+2pt)/8pt	p = 9 t = 13	4.3173
	GWUAE7-5870	(1+p+q+2pq)/8pq	p=9 q=13	4.3172
	HCT9L2-5870	(1+p+q+2pq)/8pq	p=9 q=13	4.3173
	KQ6LXJ-5870	1/(8ab)+1/(8b)+1/(8a)+0.25	a=9 b=13	4.3172
	KXNUD4-5875	(1+p+q+2pq)/8pq	p=9 q=13	4.317
	LD93DK-5870	(1+p+q+2pq)/8pq	p=9 q=13	4.317
	M6P4EZ-5870	(1+p+q+2pq)/8pq	p=9 q=13	4.3173
	MZD9FH-5870	(1+p+q+2pq)/8pq	p=9 q=13	4.3173
	PPZKYH-5870	(1+p+q+2pq)/8pq	p=9 q=13	4.3172
	QU8FDQ-5870	(1+p+q+2pq)/8pq	p=9 q=13	4.3173
	RYUMBP-5875			4.3176
	TXRJEQ-5870	(1+p+q+2pq)/8pq	p = 9 q = 13	4.3173

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
PentaD	WZPW8M-5870	(1+p+q+2pq)/8pq	p = 13 q = 9	4.317
	XCUKFH-5870	(1+p+q+2pq)/8pq	p=9 q=13	4.3172
	XUQAAQ-5870	(1+p+q+2pq)/8pq	p=9 q=13	4.3172
	YCR8E8-5870	(1+p+q+2pq)/8pq	p=9 q=13	4.317
	YDYRUU-5875	1+p+q+2pq/8pq	p =9 q = 13	4.317
	YLKGZN-5870	[(1/4+a+b/4+ab/2)]/(2ab)	a:9 b:13	4.3173
	YQPL7N-5870	(1+p+q+2pq)/8pq	p=9 q=13	4.3172
	ZEATFT-5870	(1+p9+p13+2p9p13)/4	p9=9 p13=13	0.37636936
	ZGG9PK-5870	1+p+q+2pq/8pq	p=9 q=13	4.3173
	ZPBAA6-5870	(1+p+q+2pq)/8pq	p=9 q=13	4.317

Statistical Analysis Summary of PentaD **Likelihood Ratio Mode: 4.3173**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
PentaE	4Y8GGZ-5870	(1+p)/4p	p=7	1.729
	66MNAN-5870	(1+p)/4p	p=7	1.7293
	6D6U9G-5875	(1+p)/4p	p=7	1.7293
	6PWEVY-5870	(1+p)/4p	p=7	1.729
	7TRUDL-5875	(1+p)/4p	p=0.169	1.7293
	8ZFMPY-5870	(0.25a+0.25a^2)/a^2	A=7 B=11	1.72928
	9JLGWV-5870	(0.25a+0.25a^2)/a^2	a=7	1.7293
	A4299J-5870	(1+p)/4p	p = 7	1.730
	CPHFXV-5870	(Z1/2pa)+Z0	a=7	1.729289941
	EMNBC2-5875	1+p/4p	p=7	1.7293
	FHGK2E-5870	(1+p)/4p	p=7	1.7293
	G8DLT6-5870	(1+p)/4p	p = 7	1.7293
	GWUAE7-5870	(1+p)/4p	p=7	1.7292
	HCT9L2-5870	(1+p)/4p	p=7	1.7293
	KQ6LXJ-5870	.25/a+0.25	a=7	1.7292
	KXNUD4-5875	(1+p)/4p	p=7	1.729
	LD93DK-5870	(1+p)/4p	p=7	1.729
	M6P4EZ-5870	(1+p)/4p	p=7	1.7293
	MZD9FH-5870	(1+p)/4p	p=7	1.7293
	PPZKYH-5870	(1+p)/4p	p=7	1.7292
	QU8FDQ-5870	(1+p)/4p	p=7	1.7293
	RYUMBP-5875			1.7295
	TXRJEQ-5870	(1+p)/4p	p = 7	1.7293
	WZPW8M-5870	(1+q)/4q	p = 11 q = 7	1.793

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
PentaE	XCUKFH-5870	(1+p)/4p	p=7	1.7292
	XUQAAQ-5870	(1+p)/4p	p=7	1.7292
	YCR8E8-5870	(1+p)/4p	p=7	1.729
	YDYRUU-5875	1+p/4p	p = 7	1.729
	YLKGZN-5870	[(0+a/4+a^2/4)]/(a^2)	a:7	1.7293
	YQPL7N-5870	(1+p)/4p	p=7	1.7292
	ZEATFT-5870	p7(1+p7)/4	p7=7	0.04225
	ZGG9PK-5870	(1+p)/4p	p=7	1.7293
	ZPBAA6-5870	(1+p)/4p	p=7	1.729

Statistical Analysis Summary of PentaE **Likelihood Ratio Mode: 1.7293**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
SE33	4Y8GGZ-5870	1/4		0.2500
	66MNAN-5870	1/4		0.2500
	6D6U9G-5875	1/4		0.2500
	6PWEVY-5870	0.5pq/2pq	p=16 q=19	0.2500
	764ZQ9-5875	*	*	0.2500
	7TRUDL-5875	1/4	--	0.2500
	8ZFMPY-5870	0.25(ab)/(ab)=0.25	A=15 B=22.2 C=16 D=19	0.25000
	9JLGWV-5870	0.25(ab)/(ab)	a=15 b=22.2	0.25000
	A4299J-5870	1/4		0.250
	CPHFXV-5870	Z0		0.25
	EMNBC2-5875			0.25
	FHGK2E-5870	1/4		0.2500
	G8DLT6-5870	1/4	NA	0.2500
	GWUAE7-5870	1/4	-	0.2500
	HCT9L2-5870	1/4		0.2500
	KQ6LXJ-5870	0.25	n/a	0.25
	KXNUD4-5875	0.25		0.25
	LD93DK-5870	1/4		0.25
	M6P4EZ-5870	1/4		0.2500
	MZD9FH-5870	1/4		0.2500
	PPZKYH-5870	1/4		0.25
	QU8FDQ-5870	1/4		0.25
	RJQQ8N-5875			.2500
	TK2TUM-5875			0.2500

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
SE33	TXRJEQ-5870	1/4		0.2500
	WZPW8M-5870	1/4	p = 15 q = 16 r = 19 s = 22.2	0.2500
	XCUKFH-5870	1/4		0.2500
	XUQAAQ-5870	1/4		0.2500
	YCR8E8-5870	1/4		0.2500
	YDYRUU-5875	1/4		0.25
	YLKGZN-5870	[(0+0+cd/2)]/(2cd)	c:16 d:19	0.25
	YQPL7N-5870	1/4		0.2500
	ZEATFT-5870	p16p19/2	p16=16 p19=19	0.0014472
	ZGG9PK-5870	0.25		0.25
	ZPBAA6-5870	rs/2/2rs	r=16 s=19	0.2500

Statistical Analysis Summary of SE33 **Likelihood Ratio Mode: 0.2500**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
TH01	4Y8GGZ-5870	(1+2p)/8p	p=9.3	0.6124
	66MNAN-5870	(1+2p)/8p	p=9.3	0.6124
	6D6U9G-5875	(1+2q)/8q	q=9.3	0.6124
	6PWEVY-5870	(1+2q)/8q	q=9.3	0.6124
	764ZQ9-5875	*	*	0.6131
	7TRUDL-5875	(1+2a)/8a	a=0.3449	0.6124
	8ZFMPY-5870	(0.25a+0.5ac)/2ac	A=6 B=8 C=9.3	0.61242
	9JLGWV-5870	(0.25a+0.5ac)/2ac	a=6 c=9.3	0.61242
	A4299J-5870	(1+2p)/8p	p = 9.3	0.612
	CPHFXV-5870	(Z1/4pa)+Z0	a=9.3	0.612423891
	EMNBC2-5875	1+2p/8p	p=9.3	0.6124
	FHGK2E-5870	(1+2p)/8p	p=9.3	0.6124
	G8DLT6-5870	(1+2a)/8a	a = 9.3	0.6124
	GWUAE7-5870	(1+2p)/8p	p=9.3	0.6124
	HCT9L2-5870	(1+2p)/8p	p=9.3	0.6124
	KQ6LXJ-5870	1/(8a)+0.25	a=9.3	0.6124
	KXNUD4-5875	(1+2p)/8p	p=9.3	0.612
	LD93DK-5870	(1+2p)/8p	p=9.3	0.6124
	M6P4EZ-5870	(1+2p)/8p	p=9.3	0.6124
	MZD9FH-5870	(1+2p)/8p	p=9.3	0.6124
	PPZKYH-5870	(1+2p)/8p	p=9.3	0.6124
	QU8FDQ-5870	(1+2p)/8p	p=9.3	0.6124
	RJQQ8N-5875			.6131
	RYUMBP-5875			0.6125

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
TH01	TK2TUM-5875			0.6131
	TXRJEQ-5870	(1+2p)/8p	p = 9.3	0.6124
	WZPW8M-5870	(1+2r)/8r	p = 6 q = 8 r = 9.3	0.6124
	XCUKFH-5870	(1+2p)/8p	p=9.3	0.6124
	XUQAAQ-5870	(1+2p)/8p	p=9.3	0.6124
	YCR8E8-5870	(1+2p)/8p	p=9.3	0.6124
	YDYRUU-5875	1+2p/8p	p = 9.3	0.6124
	YLKGZN-5870	[(0+c/4+2bc/4)]/(2bc)	b:9.3 c:8	0.6124
	YQPL7N-5870	(1+2p)/8p	p=9.3	0.6124
	ZEATFT-5870	p8(1+2p9.3)/4	p8=8 p9.3=9.3	0.04038622
	ZGG9PK-5870	(1+2p)/8p	p=9.3	0.61242
	ZPBAA6-5870	(1+2p)/8p	p=9.3	0.6124

Statistical Analysis Summary of TH01 **Likelihood Ratio Mode: 0.6124**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
TPOX	4Y8GGZ-5870	(1+p+q+2pq)/8pq	p=8 q=11	1.929
	66MNAN-5870	(1+p+q+2pq)/8pq	p=8 q=10	1.9286
	6D6U9G-5875	(1+p+q+2pq)/8pq	p=8 q=11	1.9286
	6PWEVY-5870	(1+q+p+2pq)/8pq	p=8 q=11	1.929
	764ZQ9-5875	*	*	1.921
	7TRUDL-5875	(1+p+s+2ps)/8ps	p=0.5249 s=0.2521	1.9286
	8ZFMPY-5870	(0.25+0.25a+0.25b+0.5ab)/2ab	A=8 B=11	1.92860
	9JLGWV-5870	(0.25+0.25a+0.25b+0.5ab)/2ab	a=8 b=11	1.9286
	A4299J-5870	(1+p+q+2pq)/8pq	p = 8 q = 11	1.929
	CPHFXV-5870	((2*Z2)+Z1(pa+pb)/4(pa*pb))+Z0	a=8 b=11	1.928603106
	EMNBC2-5875	1+p+q+2pq/8pq	p=8; q=11	1.9286
	FHGK2E-5870	(1+p+q+2pq)/8pq	p=8 q=11	1.9286
	G8DLT6-5870	(1+p+s+2ps)/8ps	p = 8 s = 11	1.9286
	GWUAE7-5870	(1+p+q+2pq)/8pq	p=8 q=11	1.9286
	HCT9L2-5870	(1+p+q+2pq)/8pq	p=8 q=11	1.9286
	KQ6LXJ-5870	1/(8ab)+1/(8b)+1/(8a)+0.25	a=8 b=11	1.9286
	KXNUD4-5875	(1+p+q+2pq)/8pq	p=8 q=11	1.929
	LD93DK-5870	(1+p+q+2pq)/8pq	p=8 q=11	1.929
	M6P4EZ-5870	(1+p+q+2pq)/8pq	p=8 q=11	1.9286
	MZD9FH-5870	(1+p+q+2pq)/8pq	p=8 q=11	1.9286
	PPZKYH-5870	(1+p+q+2pq)/8pq	p=8 q=11	1.9286
	QU8FDQ-5870	(1+p+q+2pq)/8pq	p=8 q=11	1.9286
	RJQQ8N-5875			1.921

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
TPOX	RYUMBP-5875			1.9287
	TK2TUM-5875			1.921
	TXRJEQ-5870	(1+p+q+2pq)/8pq	p = 8 q = 11	1.9286
	WZPW8M-5870	(1+p+q+2pq)/8pq	p = 11 q = 8	1.929
	XCUKFH-5870	(1+p+q+2pq)/8pq	p=8 q=11	1.9286
	XUQAAQ-5870	(1+p+q+2pq)/8pq	p=8 q=11	1.9286
	YCR8E8-5870	(1+p+q+2pq)/8pq	p=8 q=11	1.929
	YDYRUU-5875	1+p+q+2pq/8pq	p = 8 q = 11	1.929
	YLKGZN-5870	[(1/4+a+b/4+ab/2)]/(2ab)	a:8 b:11	1.9286
	YQPL7N-5870	(1+p+q+2pq)/8pq	p=8 q=11	1.9286
	ZEATFT-5870	(1+p8+p11+2p8p11)/4	p8=8 p11=11	0.510413645
	ZGG9PK-5870	1+p+q+2pq/8pq	p=8 q=11	1.9286
	ZPBAA6-5870	(1+p+q+2pq)/8pq	p=8 q=11	1.929

Statistical Analysis Summary of TPOX **Likelihood Ratio Mode: 1.9286**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
vWA	4Y8GGZ-5870	(1+2p)/8p	p=15	1.437
	66MNAN-5870	(1+2p)/8p	p=15	1.4371
	6D6U9G-5875	(1+2p)/8p	p=15	1.4371
	6PWEVY-5870	(1+2q)/8q	q=15	1.437
	764ZQ9-5875	*	*	1.366
	7TRUDL-5875	(1+2q)/8q	q=0.1053	1.4371
	8ZFMPY-5870	(0.25b+0.5ab)/2ab	A=15 B=16 C=14	1.43708
	9JLGWV-5870	(0.25a+0.5ac)/2ac	a=16 c=15	1.4371
	A4299J-5870	(1+2p)/8p	p = 15	1.438
	CPHFXV-5870	(Z1/4pa)+Z0	a=15	1.43708452
	EMNBC2-5875	1+2p/8p	p=15	1.4371
	FHGK2E-5870	(1+2p)/8p	p=15	1.4371
	G8DLT6-5870	(1+2q)/8q	q = 15	1.4371
	GWUAE7-5870	(1+2p)/8p	p=15	1.4370
	HCT9L2-5870	(1+2p)/8p	p=15	1.4371
	KQ6LXJ-5870	1/(8a)+0.25	a=15	1.4370
	KXNUD4-5875	(1+2p)/8p	p=15	1.437
	LD93DK-5870	(1+2p)/8p	p=15	1.437
	M6P4EZ-5870	(1+2p)/8p	p=15	1.4371
	MZD9FH-5870	(1+2p)/8p	p=15	1.4371
	PPZKYH-5870	(1+2p)/8p	p=15	1.4370
	QU8FDQ-5870	(1+2p)/8p	p=15	1.4371
	RYUMBP-5875			1.4375
	TXRJEQ-5870	(1+2p)/8p	p = 15	1.4371

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
vWA	WZPW8M-5870	(1+2q)/8q	p = 14 q = 15 r = 16	1.437
	XCUKFH-5870	(1+2p)/8p	p=15	1.4370
	XUQAAQ-5870	(1+2p)/8p	p=15	1.4370
	YCR8E8-5870	(1+2p)/8p	p=15	1.437
	YDYRUU-5875	1+2p/8p	p = 15	1.437
	YLKGZN-5870	[(0+c/4+2ac/4)]/(2ac)	a:15 c:14	1.43708
	YQPL7N-5870	(1+2p)/8p	p=15	1.4370
	ZEATFT-5870	p14(1+2p15)/4	p14=14 p15=15	0.02808592
	ZGG9PK-5870	(1+2p)/8p	p=15	1.4371
	ZPBAA6-5870	(1+2p)/8p	p=15	1.437

Statistical Analysis Summary of vWA **Likelihood Ratio Mode: 1.4371**

Kinship DNA Statistics

Is the claim of the following relationship supported by the genetic evidence: **Full Sibling**?

TABLE 7

WebCode-Test	Kinship Index	Claim Supported?
4Y8GGZ-5870	650	Yes
66MNAN-5870	800.4610	Yes
6D6U9G-5875	557.0034	Yes
6PWEVY-5870	650	Yes
764ZQ9-5875	41	Yes
7TRUDL-5875	800.4610	Yes
8ZFMPY-5870	800.5	Yes
9JLGWV-5870	800.5	Yes
A4299J-5870	800	Yes
CPHFXV-5870	800	Yes
EMNBC2-5875	800.4610	Yes
FHGK2E-5870	800.4610=800.5	Inconclusive
G8DLT6-5870	800.4610	Yes
GWUAE7-5870	800.4609	Yes
HCT9L2-5870	650.17	Yes
KQ6LXJ-5870	799.8021	Yes
KXNUD4-5875	8.005E+02	Yes
LD93DK-5870	650	Yes
M6P4EZ-5870	800.4610	Yes
MZD9FH-5870	650	Yes
PPZKYH-5870	799	Yes
QU8FDQ-5870	800.4610	Yes
RJQQ8N-5875	36	Yes
RYUMBP-5875	3201.5644	Yes
TK2TUM-5875	36.00	Yes
TXRJEQ-5870	800.4610	Yes
WZPW8M-5870	650.2	Yes
XCUKFH-5870	800.4609	Yes
XUQAAQ-5870	800.4609	Yes

TABLE 7 - Kinship DNA Statistics

WebCode-Test	Kinship Index	Claim Supported?
YCR8E8-5870	650	Yes
YDYRUU-5875	8.005E+02	Yes
YLKGZN-5870	800.46	Inconclusive
YQPL7N-5870	800.4609	Yes
ZEATFT-5870	1.66712E-27	No
ZGG9PK-5870	800.46	Yes
ZPBAA6-5870	650	Yes

Response Summary	Participants: 36
Is the relationship claim of Full Sibling supported?	
Yes	33
No	1
Inconclusive	2

Additional Kinship Statistical Results

TABLE 8

WebCode-Test	Additional Statistical Results and Relationship Conclusions
4Y8GGZ-5870	Per laboratory policy, D12S391 genetic locus not used for statistical analysis and combined kinship index value truncated to 2 significant figures.
66MNAN-5870	The LR value of 800.4610 is evidence that supports the hypothesis that individuals C and D are full siblings. The allele frequencies used are the shown in this assay.
6D6U9G-5875	vWA was excluded from the statistical analysis due to linkage with D12S391.
764ZQ9-5875	* The likelihood ratios were calculated with the KinCALc software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probablities with no rounding and a 1/k instead of x/N. The KinCALc software uses the NIST STRBase Population Database. The locus D12S391 was omitted due to linkage with VWA. Also we do not test PentaD and PentaE in our laboratory so those loci were not evaluated. The individuals were reported to be Caucasian; therefore only values for Caucasian were reported.
7TRUDL-5875	Combined full sibship index = 800.4610. Probability of full sibship = 99.9% (50% prior probability). AABB RT Standard 5.3.8.2 states that likelihood ratios greater than 10 shall be considered genetic evidence supporting the tested relationship. 100% of the ratios above this value have been found to be associated with a true full sibling relationship between the tested parties.
8ZFMPY-5870	AUTOSOMAL STRs: The DNA profile is single source. The kinship index supports the hypothesis that Profile D is the full sibling of Profile C using the reference populations listed. The genotype observed for Profile D is “X” times more likely to occur in a full sibling of Profile C than in someone unrelated to Profile C from the reference populations listed where “X” equals: African American – 1.4 THOUSAND, Caucasian – 200, Hispanic – 2.9 THOUSAND.
CPHFXV-5870	Z0 = 0.25. Z1 = 0.5. Z2 = 0.25.
EMNBC2-5875	AABB standards would require that the report states: The genetic evidence supports the relationship of sib1 and sib 2 as first degree relatives such as full siblings. Pu and Linacre have shown at a likelihood ratio greater than or equal to 10 that STR test results correctly confirm sibship among known sibling pairs greater than 99% of the time. (Systematic evaluation of sensitivity and specificity of sibship determination by using 15 STR loci. Pu and Linacre. Journal of Forensic and Legal Medicine 15 (2008) 329–334.)
FHGK2E-5870	Using the CODIS kinship tool, the sibling relationship was estimated between individuals C and D with an LR of 800.5 (w of 99.98%), however the genetic evidence is not sufficient to establish the sibling relationship, therefore that additional genetic data is required, such as the "Y" haplotype, in order to define whether both individuals share the same paternal lineage.
G8DLT6-5870	On comparison of the DNA profiles obtained, I found that the donor "C" and "D" are full sibling. The probability of sibship is 99.8752% as calculated based on NIST database Caucasian DNA population database.
GWUAE7-5870	There is strong evidence to indicate that the subjects C and D are full-siblings. The probability of kinship is 99.8752% as calculated based on the NIST STRBASE Caucasian Population Database.
KQ6LXJ-5870	AUTOSOMAL STRs: The DNA profile is single source. The kinship index supports the hypothesis that Profile C is the full sibling of Profile D using the reference populations listed. The genotype observed for Profile C is “X” times more likely to occur in a full sibling of Profile D than in someone unrelated to Profile D from the reference populations listed where “X” equals: African American - 1400, Caucasian – 200, Hispanic - 2900. Expanded FBI STR database allele frequencies were used and the answer was truncated to 2 sig figs to calculate the above statistics. Likelihood ratios were truncated to 4 decimal places before calculating Kinship index for question 1 [Table 7: Kinship DNA Statistics].
KXNUD4-5875	According to the 15th edition of AABB Standards for Relationship Testing Laboratories, Likelihood ratios greater than 10 shall be considered genetic evidence supporting the tested relationship.

TABLE 8

WebCode-Test	Additional Statistical Results and Relationship Conclusions
LD93DK-5870	Per laboratory policy, the D12S391 locus is excluded from the KI calculation. Per laboratory policy, the reported KI is truncated to two significant figures.
M6P4EZ-5870	On comparison of the DNA profiles obtained, I found that the donor "C" is the full sibling to the donor "D". The probability of sibship is 99.8752% as calculated based on NIST STRBASE Caucasian DNA population database.
PPZKYH-5870	This result provides strong support for a full sibling relationship.
QU8FDQ-5870	Two hypotheses were analyzed: H1: Person C and person D are full siblings. H2: Person C and person D are not related. LR = 800.4610. The H1 hypothesis is LR times (800.4610) more likely.
RJQQ8N-5875	The likelihood ratios shown above [Table 6: Kinship Likelihood Ratio Results] were calculated using the KinCALc software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k prior instead of x/N. The combined KI (Caucasian) shown above does not include vWA. vWA was removed due to genetic linkage with D12. The Penta D and Penta E loci were not calculated as these loci are not tested in this laboratory. The combined KI (Caucasian) is only calculated to 2 significant figures by the KinCALc software.
RYUMBP-5875	Father A excluded by eye.
TK2TUM-5875	The reported values are Kinship Index (KI) values calculated using KIn CALc v6.0 BFS software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k prior instead of x/N. Due to possible genetic linkage between the vWA and D12S391 loci, the genotypes from only one of these loci were reported and used to calculate the combined KI. Per laboratory practice, only the GlobalFiler loci are used for the KI calculations, hence no KI's were reported for the Penta D and Penta E loci.
TXRJEQ-5870	There is a strong evidence to indicate that the subjects C and D to be related as full-siblings. The probability of kinship is 99.8752% as calculated based on the NIST STRBASE Caucasian Population Database.
WZPW8M-5870	There is moderate support. Due to the possibility of genetic linkage between the STR loci D12S391 and vWA, the D12S391 locus was omitted from the kinship index calculation.
XCUKFH-5870	There is strong evidence to indicate that the subjects C and D are full-siblings. The probability of kinship is 99.8752% as calculated based on the NIST STRBASE Caucasian Population Database.
XUQAAQ-5870	There is strong evidence to indicate that the subjects C and D are full-siblings. The probability of kinship is 99.8752% as calculated based on the NIST STRBASE Caucasian Population Database.
YCR8E8-5870	D12S391 not included in final combined kinship index per policy.
YDYRUU-5875	Given the genetic profiles, the proposition of full sibling is 10^2 times more probable than unrelated proposition
YLKGZN-5870	Reference: Butler, J. 2010. Fundamentals of Forensic DNA Typing. Elservier Inc.
YQPL7N-5870	There is strong evidence to indicate that the subjects C and D are full-siblings. The probability of kinship is 99.8752% as calcucalted based on the NIST STRBASE Caucasian Population Database.

Additional Comments

TABLE 9

WebCode-Test	Additional Comments
2EX9QH-5870	possible mutation observed at SE33 for Alleged Father B. Direct exclusion for Alleged Father A without statistical calculation.
3D86RE-5870	Locus D12S391 not utilized for statistics due to possible linkage with vWA (as per SOPs).
4JNXFJ-5870	For all samples tested, any labeled peaks that are likely due to PCR/STR artifact were not reported and will not be used for conclusions or comparisons. DYS391 is reported as INC for all samples tested as per laboratory policy. The profile obtained from alleged father B is 510,000,000 to 8,000,000,000 times more likely if he is the father of the child than if he is unrelated. The relative chance of paternity for a Caucasian individual assuming a 50% prior chance is 99.99%. Paternity is practically proven. Alleged father B is consistent with being the biological father of the child. The alleged father A is excluded as being the father of the child.
4L8EFK-5870	CURRENTLY, THE LABORATORY DOES NOT DO SIBSHIP
4LHLYE-5870	Per agency procedures, no paternity calculations or stats are provided for locus D12S391
4Y8GGZ-5870	Per laboratory policy, D12S391 genetic locus not used for statistical analysis and CPI value truncated to 2 significant figures.
66MNAN-5870	Our laboratory detected a mutation in the SE33 marker with the PowerPlex Fusion 6C System in the Item 2. The paternity index was calculated with the formula: PI=u/PEx; where u is the mutation rate for the overall locus, while PEx is the average exclusion probability for the same locus. The value of u and the PEx formula are those reported by Butler (2014). The PEx value was obtained with the observed heterozygosity that is reported with the allele frequencies of the caucasian population from the NIST STRBASE database provided in the present trial. (2014) Advanced topics in forensic DNA typing : Interpretation (1st ed.). Oxford, England: Elsevier Academic Press. pp. 366–374.
68FEKA-5870	A possible mutation was observed at locus SE33 in the child's known DNA sample (Item 2). The [Laboratory] procedure is to outsource the paternity statistical calculations to a private laboratory when a possible mutation is present and the alleged father cannot be excluded at the remaining loci from being the biological father of the child. Therefore, the laboratory is not reporting the statistical calculations for this paternity test.
6PWEVY-5870	D12S391 is excluded from all final calculations as per laboratory policy. The final combined paternity index and final combined kinship index are truncated to 2 significant figures per laboratory policy. The probability of paternity is truncated at four places past the decimal point per laboratory policy.
764ZQ9-5875	The paternity indexes were calculated with the KinCALc software that uses standard formulae for simple PI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and 1/k instead of just x/N. The KinCALc software uses the NIST STRBase Population Database. The locus D12S391 was omitted due to linkage with VWA. The Individuals were reported to be Caucasian; therefore only values for Caucasian were reported. The consideration of mutations is required for the pedigree between Item 4 and Items 1 and 2 to be true.
8AA7MQ-5870	Due to linkage disequilibrium between vWA and D12S391 observed for kinship samples, vWA was not included in the parentage calculations.

TABLE 9

WebCode-Test	Additional Comments
8BMMXJ-5875	We did not fill out the Kinship DNA Statistics section which is not applicable in our laboratory. The PImut value of SE33 marker (ITEM 2: 30.2, 30.2; ITEM 4: 21, 31.2) was calculated as follows (0.5 x υ x 0.9 x 0.5)/q. The frequency of mutation rate υ = 0.64. The frequency of allele 30.2 of SE33 marker, q = 0.0568. The evaluation of paternity was also checked by ARGUS-X12 to prove de-novo mutation of child (ITEM 2).
8ZFMPY-5870	Parentage Paternity Index was calculated with a mutation at SE33. Mutation rate was calculated using the value of 0.0064 and the Mean Power of Exclusion value was 0.89396. Kinship Index listed on page 8, #1 [Table 7: Kinship DNA Statistics] is the value from using the NIST database. Kinship report wording on page 8, #3 [Table 7] is reported using the FBI database which the [Laboratory] uses for casework.
9R9RJH-5870	For paternity testing, DNAview software was used to calculate LRs, which was reported as the Combined Paternity Index value. The probability of paternity is not a DNAview output statistic. Individual locus PIs were not reported for Item 3 as DNAview software was used as a screening method and excluded Item 3 as the father. Under the Item 4 tab [Table 2: Paternity Index Results], N/A was reported for vWA PI since it is linked with D12S391 for all calculations. Loci D6S1043, PentaE and PentaD were not used for kinship calculations. Of note, for Item 4 to be the father of Item 2, a mutation event would have to occur at locus SE33, which was accounted for in the DNAview software kinship calculation.
DMRFD6-5875	SE33 was not used for stats as per laboratory policy.
EAWLG2-5875	The SE33 locus is not used for the calculation of PI at the [Laboratory].
EE74DA-5870	NR = No Result
FHGK2E-5870	The haplotype analysis of the X chromosome was with the FamlinK X database, using the database of the Caucasian population of [Location Identifying Populations]. The values obtained from the LR with the database of the Caucasian population are the following: LR=7.343x10e8 when combined with the LR from the CODIS database (1.064x10e12), a combined LR of 7.812x10e20 was obtained with a probability of father-daughter relationship of 99.99999999999999998%. The values obtained from the LR with the database of the [Location Identifying Population] are the following: LR=8.826x10e7 when combined with the LR from the CODIS database (1.064x10e12), a combined LR of 9.355x10e19 was obtained with a probability of father-daughter relationship of 99.99999999999999998%
G8DLT6-5870	1. Amplification: Amplification of STR (Short Tandem Repeat) Genetic Loci was carried out on Item 1 to Item 4 using Globalfiler Express PCR Amplification Kit on the 9700 GeneAmp PCR System. Amplification of Y-STR (Short Tandem Repeat) Genetic Loci was carried out on Item 3 and Item 4 using the AmpF STR Y-Filer PCR Amplification Kit on the 9700 GeneAmp PCR System. 2. Electrophoresis: Electrophoresis was carried out using Applied Biosystem 3500 xL Genetic Analyzer with GeneMapper ID-X Software for Item 1 to Item 4 (Globalfiler Express) and Item 3 and Item 4 (Y-Filer). 3. Reagent blank, positive Control and Negative Control were carried out throughout the analysis and all gave the intended results. 4. NM = Non Male profile. 5. NA = Not Applicable. 6. * = Possible mutation.

TABLE 9

WebCode-Test	Additional Comments
GWUAE7-5870	1. On comparison to the DNA profiles obtained, I found that the source of bloodstain specimen Item 4 is the biological father to the source of bloodstain specimen Item 2 (given that the biological mother is represented by the source of bloodstain specimen Item 1. 2. On comparison to the DNA profiles obtained, I found that the source of bloodstain specimen Item 3 is not the biological father to the source of bloodstain specimen Item 2 (given that the biological mother is represented by the source of bloodstain specimen Item 1. 3. Item 1, Item 2, Item 3 and Item 4 were extracted using in-situ method. 4. Amplification: -Item 1, Item 2, Item 3 and Item 4 were amplified using Globafiler Express (GFE) on PROFLEX PCR System. -Item 3 and Item 4 were further amplified using AmpFISTR Y-Filer PCR Amplification kit on 9700 GeneAmp PCR System. 5. Electrophoresis: -Electrophoresis was carried out on Genetic Analyzer 3500xl for Item 1, Item 2, Item 3 and Item 4 (Globalfiler Express). -Electrophoresis was carried out on Genetic Analyzer 3500xl for Item 3 and Item 4 (Yfiler). 6. Quality Control: -Reagent blank, positive control and negative control were incorporated in the overall analysis and gave designated results. 7. The statistical formula was derived from DNAView Statistical Software and calculated using microsoft Excel. Remark: 'NM' denotes non-male profile. '*' denotes possible mutation.
HCT9L2-5870	Part I & II [Table 1 - Table 5]: Item 3: No PI provided due to exclusion. The Laboratory will exclude the alleged parent as a biological parent of the child when there are three or more markers with genetic inconsistencies. Likelihood ratio is not calculated when the alleged parent is excluded. Item 4: No PI provided for D12S391; Minimum Allele Frequency of 0.01 used for D3S1358 allele 19. The average mutation likelihood ratio was calculated for the locus SE33. The Laboratory does not include the locus D12S391 for kinship statistical calculation. The Laboratory will use a Minimum Allele Frequency of 0.01 when the Allele Frequency is less than 0.01 for kinship statistical calculation. The Laboratory uses the NIST (combined races n=1036) dataset for kinship statistical calculation. Legend: ^ refers to the power of. Part III [Tables 6 - 7]: The Laboratory does not include the locus D12S391 for kinship statistical calculation. Legend: ^ refers to the power of.
JWY4TY-5875	A single non-matching system was observed at the SE33 locus. The single-locus mismatch could be due to a rare mutational event. Another explanation for the observed genetic results is that the alleged father is a first order relative (father, brother, or son) of the true biological father. Under this assumption the combined avuncular index is 64,442,922. Given the genetic results, it is more likely that Alleged Father B is the true father of the child, Caucasian Daughter, as opposed to a first order relative of the true biological father.
KQ6LXJ-5870	Mutation rate used at SE33 for Item 4 parentage calculations was 0.0064
KQEYWM-5870	The laboratory does not calculate probability of paternity. The laboratory does not include vWA in CPI calculations due to possible linkage issues with D12.
KYQWK7-5870	For paternity testing, the DNAview software was used to calculate LRs, which was reported as the Combined Paternity Index value. The probability of paternity is not a DNAview output statistic. Individual locus PI were not reported for Item 3 as the DNAview software was used as a screening method and excluded Item 3 as being a potential father to Item 2. Under the Item 4 table [Table 2: Paternity Index Results], N/A was reported for the locus vWA PI as vWA is linked to D12 for all calculations. Loci D6S1043, PentaE, and PentaD were not used for kinship analysis. Of note, for Item 4 to be the father of Item 2, a mutational event would have to occur at locus SE33, which was accounted for in the DNAview software kinship calculation.
LD93DK-5870	The CPI is truncated to two significant figures, per laboratory policy. The D12S391 locus is not used in the CPI calculation, per laboratory policy.

TABLE 9

WebCode-Test	Additional Comments
M6P4EZ-5870	Extraction: Item 1, Item 2 and Item 3 were extracted using Chelex Extraction. Quantification: Item 1, Item 2 and Item 3 were quantified using the Quantifiler Human DNA quantitation kit and carried out by 7500 Real-Time PCR. Amplification: Item 4 was amplified using GlobalFiler Express kit on 9700 GeneAmp PCR System. Item 1, Item 2 and Item 3 were amplified using GlobalFiler Kit on 9700 GeneAmp PCR System. Item 3 and Item 4 were amplified using AMPFlSTR YFiler Kit on 9700 GeneAmp PCR System. Electrophoresis: The electrophoresis process was carried out by Genetic Analyser 3500xl for Item 1 to Item 4. Quality Control: Reagent blank, positive control, and negative control were carried out along with the analysis and all gave the intended results. NM denotes non male profile. * denotes possible mutation. Determination of PI Values only will be calculated for inclusion result.
MZ449Z-5875	Part III KINSHIP DNA STATISTICS [Tables 6 - 7] is not applicable. Our lab does not perform Kinship calculation.
MZD9FH-5870	Parts I and II [Tables 1 - 5]: Our laboratory does not calculate a likelihood ratio for exclusions. D12S391 is omitted from the calculation, per laboratory policy. One population database ethnicity was chosen. Two significant figures are reported for the CPI, per laboratory policy. Part III [Tables 6 - 7]: The individual LR's were rounded to the fourth decimal. D12S391 is omitted from final calculation, per laboratory policy. Two significant figures are reported for final calculation, per laboratory policy.
N4QFBU-5870	Paternity indices, combined paternity index, and probability of paternity were reported using the Caucasian population values based on information provided in the test scenario. Genetic locus D12S391 was not used for paternity index calculations per laboratory's standard operating procedures. Paternity index calculations were not generated for item 3 due to exclusion as biological father.
NX6MYV-5870	Per SOP, D12S391 is not included in paternity index calculations.
NZLC4U-5875	SE33 not used for statistics in laboratory procedure
QF62XE-5870	Our laboratory does not calculate a Paternity Index. Per our SOP, we identify obligate alleles which are used to calculate a "Random Man Not Excluded" (RMNE) statistic. For this case, the obligate alleles were as follows: D3 (19), vWA (14), D16 (12), CSF (12), TPOX (8), D8 (14), D21 (29), D18 (16), D2S441 (14), D19 (13,16), TH01 (8), FGA (21), D22 (16), D5 (11,12), D13 (8), D7 (10), SE33 (30.2), D10 (13), D1 (15.3), D12 (17.3), and D2S1338 (25). RMNE report statement: The expected frequency of individuals who could be the father of item 2 is less than 1 in 100 billion in the general male population. NR= no result
QU8FDQ-5870	A mutation was found at the SE33 locus in the paternal line. Two mechanisms are possible: loss of heterozygosity or dropping out of one repeat (31.2 - 30.2). The AABB model was used in the calculations. The CPI value without mutation at the SE33 locus is: CPI=8,621,569,373,550. Probability value of paternity CP=99.9999999999%.
RAEWWX-5870	NR = No Result
RJQQ8N-5875	For the paternity statistics, the likelihood ratios were calculated using the KinCALc software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k prior instead of x/N. The combined PI (Caucasian) shown does not include D12. D12 was removed due to genetic linkage with vWA. The Penta D and Penta E loci were not calculated as these loci are not tested in this laboratory. This laboratory does not report probability of paternity and so this value was not calculated.

TABLE 9

WebCode-Test	Additional Comments
TK2TUM-5875	For Part I [Table 2: Paternity Index Results] - PI values at specific loci, Part II [Table 5: Paternity DNA Statistics & Conclusions] - Combined PI value, and Part III [Tables 6 - 7] - Kinship DNA Statistics: the reported values are Kinship Index (KI) values calculated using KIn CALc v6.0 BFS software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k prior instead of x/N. Due to possible genetic linkage between the vWA and D12S391 loci, the genotypes from only one of these loci is reported and used to calculate the combined KI. For Item 4, a mutation was allowed for the calculation of the KI at the SE33 locus and subsequently the calculation of the combined KI (i.e. the Combined Paternity Index value) listed under Part II [Table 5]. For Part II [Table 5]: our laboratory does not report Probabilities of Paternity.
TPY6VE-5870	CPI was calculated using D12S391, but not vWA, to account for the possibility that these loci could be in linkage disequilibrium for paternity samples.
TXRJEQ-5870	Amplification: Item 1, Item 2, Item 3 and Item 4 were amplified using Applied Biosystems™ GlobalFiler™ Express PCR Amplification Kit on the Applied Biosystems™ GeneAmp™ PCR System 9700. With in-situ method, Item 3 and Item 4 were also amplified using Applied Biosystems™ AmpFLSTR™ YFiler™ PCR Amplification Kit on the Applied Biosystems™ GeneAmp™ PCR System 9700. Electrophoresis: Electrophoresis was carried out on the Applied Biosystems™ 3500xL Genetic Analyzer and the data were analyzed using GeneMapper™ ID-X Software v1.5. Quality control: Reagent Blank, Positive Control and Negative Control were included throughout the analysis and all gave intended results. Statistical evaluation: The statistical formulas were derived from DNAView Statistical Software and the paternity / kinship index was calculated using Microsoft Office Excel. On comparison to the DNA profiles obtained, I found that the donor of bloodstained specimen Item 4 is the biological father to the donor of bloodstained specimen Item 2 with a possible mutation at locus SE33. (Given that the biological mother is represented by the donor of bloodstained specimen Item 1). Remark: 'NM' denotes non-male DNA profile. '*' indicates possible mutation.
UNQ8JB-5870	Our laboratory does not require statistical analysis for manual kinship exclusions.
W8QDHR-5870	NR = No Result
XCUKFH-5870	1. On comparison to the DNA profiles obtained, I found that the source of bloodstain specimen Item 4 is the biological father to the source of bloodstain specimen Item 2 (given that the biological mother is represented by the source of bloodstain specimen Item 1). 2. On comparison to the DNA profiles obtained, I found that the source of bloodstain specimen Item 3 is NOT the biological father to the source of bloodstain specimen Item 2 (given that the biological mother is represented by the source of bloodstain specimen Item 1). 3. Item 1, Item 2, Item 3 and Item 4 were extracted using in-situ method. 4. Amplification: - Item 1, Item 2, Item 3 and Item 4 were amplified using Globalfiler Express (GFE)on PROFLEX PCR System. - Item 3 and Item 4 were further amplified using AmpFlSTR Y-Filer PCR Amplification kit on 9700 GeneAmp PCR System. 5. Electrophoresis: -Electrophoresis was carried out on Genetic Analyzer 3500xl for Item 1, Item 2, Item 3 and Item 4 (Globalfiler Express). -Electrophoresis was carried out on Genetic Analyzer 3500xl for Item 3 and Item 4 (Yfiler). 6. Quality Control: -Reagent blank, positive control and negative control were incorporated in the overall analysis and gave designated results. 7. The statistical formula was derived from DNAView Statistical Software and calculated using Microsoft Excel. Remark: 'NM' denotes non-male profile. '*'denotes possible mutation

TABLE 9

WebCode-Test	Additional Comments
XUQAAQ-5870	1. On comparison to the DNA profiles obtained, I found that the source of bloodstain specimen Item 4 is the biological father to the source of bloodstain specimen Item 2 (given that the biological mother is represented by the source of bloodstain specimen Item 1). 2. On comparison to the DNA profiles obtained, I found that the source of bloodstain specimen Item 3 is NOT the biological father to the source of bloodstain specimen Item 2 (given that the biological mother is represented by the source of bloodstain specimen Item 1). 3. Item 1, Item 2, Item 3 and Item 4 were extracted using in-situ method. 4. Amplification: - Item 1, Item 2, Item 3 and Item 4 were amplified using Globalfiler Express (GFE) on PROFLEX PCR System. - Item 3 and Item 4 were further amplified using AmpFlSTR Y-Filer PCR Amplification kit on 9700 GeneAmp PCR System. 5. Electrophoresis: -Electrophoresis was carried out on Genetic Analyzer 3500xl for Item 1, Item 2, Item 3 and Item 4 (Globalfiler Express). -Electrophoresis was carried out on Genetic Analyzer 3500xl for Item 3 and Item 4 (Yfiler). 6. Quality Control: -Reagent blank, positive control and negative control were incorporated in the overall analysis and gave designated results. 7. The statistical formula was derived from DNAView Statistical Software and calculated using Microsoft Excel. Remark: 'NM' denotes non-male profile. '*' denotes possible mutation
YKN3C7-5870	* Per agency policy, D12S391 is not used for PI calculations due to linkage with vWA. * Per case information and agency policy, Caucasian PI values are reported here.
YQPL7N-5870	1. I found that the donor of bloodstain specimen Item 2 is the biological child to the donor of bloodstain specimen Item 1 and bloodstain specimen Item 4. 2. On comparison to the DNA profiles obtained, I found that the donor of bloodstain specimen Item 3 is not the biological father to the donor of bloodstain specimen Item 2 (given that the biological mother is represented by the donor of bloodstain specimen Item 1). 3. Item 1, Item 2, Item 3 and Item 4 were extracted using in-situ method and amplified using Globalfiler Express Amplification Kit on Proflex PCR System. 4. Item 3 and Item 4 were amplified using AmpFLSTR Yfiler PCR Amplification Kit on ABI GeneAmp PCR System 9700. 5. Electrophoresis were carried out using Applied Biosystem 3500xL Genetic Analyzer. 6. Reagent blank, positive and negative control were carried out along with the analysis. 7. The statistical formula were derived by DNA View Statistical Software and calculated using Microsoft Excel. 8. NM: Represent non-male profile. 9. '*' denotes possible mutation
ZPBAA6-5870	Parts I and II [Tables 1 - 5]: -Individual locus PIs are rounded to three significant figures. -The Combined Paternity Index value is truncated to two significant figures, per Department policy. -The Probability of Paternity is truncated at four places past the decimal, per Department policy. Part III [Tables 6 - 7]: -The individual locus LRs were rounded to four significant figures. -The Combined Kinship Index value excluded the D12S391 locus and is truncated to two significant figures, per Department policy.

-End of Report-
(Appendix may follow)

Collaborative Testing Services ~ Forensic Testing Program

Test No. 23-5870: DNA Parentage

DATA MUST BE SUBMITTED BY **April 17, 2023, 11:59 p.m. EDT** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A WebCode: N26QWA

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

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

Items Submitted (Sample Pack DPF1 - FTA Microcards):
Item 1: Blood Sample from Known Parent (Caucasian Mother)
Item 2: Blood Sample from Known Child (Caucasian Daughter)
Item 3: Blood Sample from Alleged Father A (Caucasian)
Item 4: Blood Sample from Alleged Father B (Caucasian)

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") and null responses
- PI = Paternity Index
- If your laboratory does not produce PI calculations, 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

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):

Alleles below are sorted in **Default** *order.*

ITEM	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
1						
ITEM	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
1						
ITEM	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
1						
ITEM	FGA	Penta D	Penta E	SE33	TH01	TPOX
1						
ITEM	vWA	DYS391	DYS570	DYS576	Y Indel	
1						

Part I (continued): 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):

Alleles below are sorted in **Default** *order.*

ITEM	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
2						
ITEM	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
2						
ITEM	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
2						
ITEM	FGA	Penta D	Penta E	SE33	TH01	TPOX
2						
ITEM	vWA	DYS391	DYS570	DYS576	Y Indel	
2						

Part I (continued): DNA Analysis for Item 3

Please refer to the 'Part II: Paternity DNA Statistics' section of this data sheet regarding the suggested Population Database(s) to use to determine PI values. Report a minimum of three significant figures in your 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):

Alleles below are sorted in **Default** *order.*

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

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

Alleles below are sorted in **Default** *order.*

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

Part I (continued): DNA Analysis for Item 4

Please refer to the 'Part II: Paternity DNA Statistics' section of this data sheet regarding the suggested Population Database(s) to use to determine PI values. Report a minimum of three significant figures in your 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):

Alleles below are sorted in **Default** *order.*

ITEM	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
4 STR						
4 PI						
ITEM	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
4 STR						
4 PI						
ITEM	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
4 STR						
4 PI						
ITEM	FGA	Penta D	Penta E	SE33	TH01	TPOX
4 STR						
4 PI						
ITEM	vWA	DYS391	DYS570	DYS576	Y Indel	
4 STR						
4 PI						

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

Alleles below are sorted in **Default** *order.*

ITEM	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
4									
ITEM	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
4									
ITEM	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
4									

Part I (continued): DNA Analysis - Additional DNA

- 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.
- Click "Add Row" to show another row of boxes for entry.

Locus	Item 1	Item 2	Item 3 Alleles	Item 3 PI	Item 4 Alleles	Item 4 PI

Part II: PATERNITY DNA STATISTICS

Select which of the alleged fathers below cannot be excluded as the biological parent of the child (Item 2) and answer the remaining questions based on your selection.

○ Item 3 - Alleged Father A ○ Item 4 - Alleged Father B

For the selected alleged parent, please utilize your own lab protocols regarding ethnicity 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, access the population database by selecting 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.
4. If you did not calculate paternity statistics, please provide an explanation in your additional comments.

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:

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 (eg. half siblings versus unrelated).
- Complete the entire table including the formula used in the calculation and the allele legend.
- Report a minimum of four significant figures in your likelihood ratio values.

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	10.27
vWA	14, 15	14, 17	14: 0.0928 17: 0.1053	15: 0.1053	(1+4p)/8p	p = 14	1.847

Scenario:

The two DNA profiles below are presented as a potential Caucasian full 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	C	D	Allele Frequencies		Formula Used	Allele Legend	Likelihood Ratio
D1S1656	12,15.3	12,12	12: 0.1163	15.3: 0.0582			
D2S1338	20,22	18,22	18: 0.0734 22: 0.0346	20: 0.1565			
D2S441	11,11	10,11	10: 0.2105	11: 0.3435			
D3S1358	16,18	15,17	15: 0.2729 17: 0.2105	16: 0.2382 18: 0.1510			
D5S818	11,11	11,11	11: 0.3560				

Locus	C	D	Allele Frequencies		Formula Used	Allele Legend	Likelihood Ratio
D7S820	8,9	9,11	8: 0.1440	9: 0.1676			
			11: 0.2050				
D8S1179	12,15	12,14	12: 0.1676	14: 0.1662			
			15: 0.1039				
D10S1248	14,14	13,14	13: 0.3075	14: 0.2978			
D12S391	17,20	17,18	17: 0.1274	18: 0.1717			
			20: 0.1108				
D13S317	11,11	9,11	9: 0.0776	11: 0.3255			
D16S539	9,11	9,11	9: 0.1066	11: 0.3144			
D18S51	12,18	16,18	12: 0.1136	16: 0.1468			
			18: 0.0776				
D19S433	14,16.2	13,14	13: 0.2548	14: 0.3615			
			16.2: 0.0152				
D21S11	27,30	28,30	27: 0.0222	28: 0.1593			
			30: 0.2825				
D22S1045	15,16	15,16	15: 0.3213	16: 0.3823			

Participant Code: U1234A
WebCode: N26QWA

Locus	C	D	Allele Frequencies		Formula Used	Allele Legend	Likelihood Ratio
CSF1PO	11,12	11,12	11: 0.3089	12: 0.3601			
FGA	20,23	20,26	20: 0.1233	23: 0.1524			
			26: 0.0263				
PentaD	9,13	9,13	9: 0.2216	13: 0.1967			
PentaE	7,11	7,7	7: 0.1690	11: 0.0873			
SE33	15,22.2	16,19	15: 0.0402	16: 0.0402			
			19: 0.0720	22.2: 0.0374			
TH01	6,9.3	8,9.3	6: 0.2355	8: 0.0956			
			9.3: 0.3449				
TPOX	8,11	8,11	8: 0.5249	11: 0.2521			
vWA	15,16	14,15	14: 0.0928	15: 0.1053			
			16: 0.2008				

1. Evaluate the profiles above and record the kinship index.

2. Is the relationship of Full Sibling supported by the genetic evidence?

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

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

Part IV: ADDITIONAL COMMENTS

Comments regarding any part of this Test.

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

RELEASE OF DATA TO ACCREDITATION BODIES

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

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

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Have the laboratory's designated individual complete the following steps
only if your laboratory is accredited in this testing/calibration discipline
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Authorized Contact Person and Title

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Location (City/State)