



DNA Parentage Test No. 16-5871 Summary Report

This proficiency test was sent to 45 participants. Each participant received a sample pack consisting of the standard paternity trio, collected from a mother, daughter, and a potential father. Participants were requested to analyze the samples using their existing protocols. Data were returned from 39 participants (87% response rate) and are compiled into the following tables:

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

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

Manufacturer's Information

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

SAMPLE PREPARATION: All stains were prepared from human whole blood which was drawn into EDTA tubes. Item 1 (75 μ l) was blood from a female (mother) donor, Item 2 (75 μ l) was from a female (daughter) donor and Item 3 (75 μ l) was created using blood collected from a male donor who was not the biological father of the daughter (Item 2). Each different Item was prepared at separate times and were packaged once they were thoroughly dried. Completed sample sets were stored at -20°C until shipment on May 9, 2016.

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

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

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

Manufacturer's Information, continued

Amelogenin and STR Results

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

<u>Item</u>	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
1	12,17.3	20,25	11,14	15,16	13,13	9,9
	12,13	13,14	18,20	11,13	11,12	14,18
	14,14	28,29	16,16	X,X	11,12	19,22
	12,13	12,16	*	9,9.3	11,11	15,17
2	12,16	22,25	10,11	14,15	12,13	9,12
	10,12	14,16	18,22	11,11	12,12	18,18
	12,14	29,32.2	16,16	X,X	11,12	22,23
	12,13	7,16	*	6,9.3	10,11	17,17
3	15,16.3	21,24	10,14	14,16	12,13	10,11
	10,10	13,14	17.3,21	8,11	9,13	13,19
	16,17	28,30	11,15	X,Y	11,12	19,23
	12,13	7,9	*	7,9	8,9	16,17

YSTR Results

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

<u>Item</u>	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
	DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	Y Indel	
3	14	12,15	13	30	24	11	13	13
	15	12	12	19	18	17	*	*
	*	*	*	23	*	11	*	

* Results were not received by a minimum of 10 participants for STR and YSTR loci indicated.

Paternity Indices

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

<u>Database</u>	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
3PI- FBI PopStats	∅	∅	∅	*	*	∅
	*	∅	∅	*	∅	∅
	∅	∅	∅	∅	*	*
	∅	∅	∅	∅	∅	*
3PI- NIST-STRBASE	∅	*	*	4.69	1.29	*
	9.76	∅	∅	1.54	*	*
	*	*	∅	*	1.49	3.28
	*	*	∅	∅	*	1.76

* PI data was not received from a minimum of 10 participants for the loci indicated.

∅ No results were received for the loci indicated with this symbol.

Summary Comments

The 16-5871 DNA Parentage test was designed to allow participants to assess their proficiency in the analysis and interpretation of a standard trio of blood stains on FTA Micro cards. Item 1 was blood collected from a female donor (mother), Item 2 was blood collected from a female donor (daughter of Item 1) and Item 3 was blood collected from a male donor (potential father of Item 2). Participants were requested to analyze the samples and provide allelic and statistical results and relationship conclusions regarding the potential father. Sample sets also included a kinship exercise provided on the data sheets 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).

Paternity DNA Statistics (Table 5):

For the population database used, 30 participants responded. Fourteen used NIST-STRBASE, ten used the FBI POPSTATS database and six participants reported the use of a laboratory specific database.

Of the 39 participants returning results, six reported a CPI value ranging between 2.33E-47 and 746. Other participants stated that the combined paternity index was not calculated for exclusions.

For the Probability of Paternity, 29 participants reported either a value of "0" , or did not report a probability value. Two participants reported values greater than or equal to 99.87%.

For the Paternity Conclusions (Table 6), all 39 participants reported that the potential father (Item 3) was excluded as the potential biological parent of the daughter (Item 2).

For Kinship DNA Statistics (Table 7), fifteen participants indicated that the claim of kinship was supported between the siblings, one participant reported that the claim was not supported, and the remaining participant reported "N/A".

Only one participant reported an allelic result that differed from the consensus. This participant reported an inconsistent allele at D2S1338 for Item 2.

Amelogenin & STR Results

TABLE 1

WebCode Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
Item 1						
28QJR4	<i>PowerPlex® 16 HS, Power Plex ESX 17</i>					
1	12,17.3	20,25	11,14	15,16	13,13	9,9
	12,13	13,14	18,20	11,13	11,12	14,18
	14,14	28,29	16,16	X,X	11,12	19,22
	12,13	12,16	18,18	9,9.3	11,11	15,17
29L2T6	<i>PowerPlex® Fusion System</i>					
1	12,17.3	20,25	11,14	15,16	13,13	9,9
	12,13	13,14	18,20	11,13	11,12	14,18
	14,14	28,29	16,16	X,X	11,12	19,22
	12,13	12,16		9,9.3	11,11	15,17
2QNMTE	<i>PowerPlex® 21</i>					
1	12,17.3	20,25		15,16	13,13	9,9
	12,13		18,20	11,13	11,12	14,18
	14,14	28,29		X,X	11,12	19,22
	12,13	12,16		9,9.3	11,11	15,17
2U64N6	<i>PowerPlex® Fusion Direct</i>					
1	12,17.3	20,25	11,14	15,16	13	9
	12,13	13,14	18,20	11,13	11,12	14,18
	14	28,29	16	X	11,12	19,22
	12,13	12,16		9,9.3	11	15,17
99Y4F7	<i>PowerPlex® 21</i>					
1	12,17.3	20,25		15,16	13,13	9,9
	12,13		18,20	11,13	11,12	14,18
	14,14	28,29		X,X	11,12	19,22
	12,13	12,16		9,9.3	11,11	15,17
AAPPL2	<i>COfiler® and Profiler Plus®</i>					
1				15,16	13,13	9,9
	12,13			11,13	11,12	14,18
		28,29		X,X	11,12	19,22
				9,9.3	11,11	15,17
C2U7KY	<i>PowerPlex® Fusion</i>					
1	12,17.3	20,25	11,14	15,16	13	9
	12,13	13,14	18,20	11,13	11,12	14,18
	14	28,29	16	X	11,12	19,22
	12,13	12,16		9,9.3	11	15,17
C694QZ	<i>COfiler® and Profiler Plus®</i>					
1				15,16	13,13	9,9
	12,13			11,13	11,12	14,18
		28,29		X,X	11,12	19,22
				9,9.3	11,11	15,17

TABLE 1

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

Item 1

CZDATY	<i>Identifiler® Plus, GlobalFiler Express</i>						
	1	12,17.3	20,25	11,14	15,16	13	9
		12,13	13,14	18,20	11,13	11,12	14,18
		14	28,29	16	X	11,12	19,22
			18	9,9.3	11	15,17	
D3YBBR	<i>Identifiler® PLUS</i>						
	1		20,25		15,16	13,13	9,9
		12,13			11,13	11,12	14,18
		14,14	28,29		X,X	11,12	19,22
				9,9.3	11,11	15,17	
D4CKNY	<i>Identifiler® Plus</i>						
	1		20,25		15,16	13	9
		12,13			11,13	11,12	14,18
		14	28,29		X	11,12	19,22
				9,9.3	11	15,17	
ENXYFT	<i>AmpFISTR NGM SElect</i>						
	1	12,17.3	20,25	11,14	15,16		
		12,13	13,14	18,20		11,12	14,18
		14,14	28,29	16,16	X,X		19,22
			18,18	9,9.3		15,17	
FE2J4U	<i>PowerPlex® Fusion</i>						
	1	12,17.3	20,25	11,14	15,16	13	9
		12,13	13,14	18,20	11,13	11,12	14,18
		14	28,29	16	X	11,12	19,22
	12,13	12,16		9,9.3	11	15,17	
FT4VYT	<i>PowerPlex® Fusion</i>						
	1	12,17.3	20,25	11,14	15,16	13	9
		12,13	13,14	18,20	11,13	11,12	14,18
		14	28,29	16	X	11,12	19,22
	12,13	12,16		9,9.3	11	15,17	
GH2UYU	<i>PowerPlex® Fusion</i>						
	1	12,17.3	20,25	11,14	15,16	13	9
		12,13	13,14	18,20	11,13	11,12	14,18
		14	28,29	16	X	11,12	19,22
	12,13	12,16		9,9.3	11	15,17	
GPHPFN	<i>Identifiler® Plus</i>						
	1		20,25		15,16	13,13	9,9
		12,13			11,13	11,12	14,18
		14,14	28,29		X,X	11,12	19,22
				9,9.3	11,11	15,17	

TABLE 1

WebCode Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
Item 1						
HD6PJU	<i>COfiler® and Profiler Plus®</i>					
1				15,16	13,13	9,9
	12,13			11,13	11,12	14,18
		28,29		X,X	11,12	19,22
				9,9.3	11,11	15,17
HKNTQX	<i>Identifiler® Plus</i>					
1		20,25		15,16	13	9
	12,13			11,13	11,12	14,18
	14	28,29		X	11,12	19,22
				9,9.3	11	15,17
J9PE7Q	<i>Identifiler® plus</i>					
1		20,25		15,16	13,13	9,9
	12,13			11,13	11,12	14,18
	14,14	28,29		X,X	11,12	19,22
				9,9.3	11,11	15,17
JGJJYR	<i>COfiler® and Profiler Plus®</i>					
1				15,16	13,13	9,9
	12,13			11,13	11,12	14,18
		28,29		X,X	11,12	19,22
				9,9.3	11,11	15,17
JJQ2XN	<i>Identifiler® Plus</i>					
1		20,25		15,16	13,13	9,9
	12,13			11,13	11,12	14,18
	14,14	28,29		X,X	11,12	19,22
				9,9.3	11,11	15,17
JNVXGN	<i>PowerPlex® Fusion 6 C</i>					
1	12,17.3	20,25	11,14	15,16	13	9
	12,13	13,14	18,20	11,13	11,12	14,18
	14	28,29	16	X	11,12	19,22
	12,13	12,16	18	9,9.3	11	15,17
KAULLN	<i>Identifiler® Direct</i>					
1	-	20,25	-	15,16	13	9
	12,13	-	-	11,13	11,12	14,18
	14	28,29	-	X,X	11,12	19,22
	-	-	-	9,9.3	11	15,17
KEPDUL	<i>Identifiler® ID-DIRECT</i>					
1		20,25		15,16	13	9
	12,13			11,13	11,12	14,18
	14,14	28,29		X,X	11,12	19,22
				9,9.3	11,11	15,17

TABLE 1

WebCode Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
Item 1						
KNZFFL	<i>PowerPlex® Fusion, NGM</i>					
1	12,17,3	20,25	11,14	15,16	13,13	9,9
	12,13	13,14	18,20	11,13	11,12	14,18
	14,14	28,29	16,16	X,X	11,12	19,22
	12,13	12,16		9,9.3	11,11	15,17
L6UWHM	<i>COfiler® and Profiler Plus®</i>					
1				15,16	13,13	9,9
	12,13			11,13	11,12	14,18
		28,29		X,X	11,12	19,22
				9,9.3	11,11	15,17
MV9TBM	<i>Identifiler® Direct</i>					
1	-	20,25	-	15,16	13	9
	12,13	-	-	11,13	11,12	14,18
	14	28,29	-	X,X	11,12	19,22
	-	-	-	9,9.3	11	15,17
N693UH	<i>Identifiler® Direct</i>					
1	-	20,25	-	15,16	13	9
	12,13	-	-	11,13	11,12	14,18
	14	28,29	-	X,X	11,12	19,22
	-	-	-	9,9.3	11	15,17
P7V2LK	<i>COfiler® and Profiler Plus®</i>					
1				15,16	13,13	9,9
	12,13			11,13	11,12	14,18
		28,29		X,X	11,12	19,22
				9,9.3	11,11	15,17
PKFGPK	<i>Identifiler® Plus</i>					
1		20,25		15,16	13	9
	12,13			11,13	11,12	14,18
	14	28,29		X	11,12	19,22
				9,9.3	11	15,17
RGUDUK	<i>COfiler® and Profiler Plus®</i>					
1				15,16	13,13	9,9
	12,13			11,13	11,12	14,18
		28,29		X,X	11,12	19,22
				9,9.3	11,11	15,17
TLJBWF	<i>Identifiler® Direct</i>					
1	-	20,25	-	15,16	13	9
	12,13	-	-	11,13	11,12	14,18
	14	28,29	-	X,X	11,12	19,22
	-	-	-	9,9.3	11	15,17

TABLE 1

WebCode Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
Item 1						
TW2UGC	<i>Identifiler® plus</i>					
1		20,25		15,16	13,13	9,9
	12,13			11,13	11,12	14,18
	14,14	28,29		X,X	11,12	19,22
				9,9.3	11,11	15,17
UEWKAK	<i>PowerPlex® PowerPlex 21</i>					
1	12,17.3	20,25		15,16	13,13	9,9
	12,13		18,20	11,13	11,12	14,18
	14,14	28,29		X,X	11,12	19,22
	12,13	12,16		9,9.3	11,11	15,17
UJBK8C	<i>PowerPlex® Fusion System, NGMSElect</i>					
1	12,17.3	20,25	11,14	15,16	13	9
	12,13	13,14	18,20	11,13	11,12	14,18
	14	28,29	16	X	11,12	19,22
	12,13	12,16	18	9,9.3	11	15,17
VKXJXF	<i>Identifiler® Plus</i>					
1		20,25		15,16	13,13	9,9
	12,13			11,13	11,12	14,18
	14,14	28,29		X,X	11,12	19,22
				9,9.3	11,11	15,17
X2FYEG	<i>PowerPlex® 21</i>					
1	12,17.3	20,25		15,16	Not reported	9,9
	12,13		18,20	11,13	11,12	14,18
	14,14	28,29		X,X	11,12	19,22
	12,13	12,16		9,9.3	11,11	15,17
X9H9LA	<i>PowerPlex® ESI17 Pro, GlobalFiler</i>					
1	12,17.3	20,25	11,14	15,16	13	9
	12,13	13,14	18,20	11,13	11,12	14,18
	14	28,29	16	X	11,12	19,22
			18	9,9.3	11	15,17
ZZXNEF						
1	12,17.3	20,25	11,14	15,16	13,13	9,9
	12,13	13,14	18,20	11,13	11,12	14,18
	14,14	28,29	16,16	X,X	11,12	19,22
			18,18	9,9.3	11,11	15,17

TABLE 1

WebCode Item	Item 2					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
Penta D	Penta E	SE33	TH01	TPOX	vWA	
28QJR4	<i>PowerPlex® 16 HS, Power Plex ESX 17</i>					
2	12,16	22,25	10,11	14,15	12,13	9,12
	10,12	14,16	18,22	11,11	12,12	18,18
	12,14	29,32.2	16,16	X,X	11,12	22,23
	12,13	7,16	18,27.2	6,9.3	10,11	17,17
29L2T6	<i>PowerPlex® Fusion System</i>					
2	12,16	22,25	10,11	14,15	12,13	9,12
	10,12	14,16	18,22	11,11	12,12	18,18
	12,14	29,32.2	16,16	X,X	11,12	22,23
	12,13	7,16		6,9.3	10,11	17,17
2QNMT6	<i>PowerPlex® 21</i>					
2	12,16	22,25		14,15	12,13	9,12
	10,12		18,22	11,11	12,12	18,18
	12,14	29,32.2		X,X	11,12	22,23
	12,13	7,16		6,9.3	10,11	17,17
2U64N6	<i>PowerPlex® Fusion Direct</i>					
2	12,16	22,25	10,11	14,15	12,13	9,12
	10,12	14,16	18,22	11	12	18
	12,14	29,32.2	16	X	11,12	22,23
	12,13	7,16		6,9.3	10,11	17
99Y4F7	<i>PowerPlex® 21</i>					
2	12,16	22,25		14,15	12,13	9,12
	10,12		18,22	11,11	12,12	18,18
	12,14	29,32.2		X,X	11,12	22,23
	12,13	7,16		6,9.3	10,11	17,17
AAPPL2	<i>COfiler® and Profiler Plus®</i>					
2				14,15	12,13	9,12
	10,12			11,11	12,12	18,18
		29,32.2		X,X	11,12	22,23
				6,9.3	10,11	17,17
C2U7KY	<i>PowerPlex® Fusion</i>					
2	12,16	22,25	10,11	14,15	12,13	9,12
	10,12	14,16	18,22	11	12	18
	12,14	29,32.2	16	X	11,12	22,23
	12,13	7,16		6,9.3	10,11	17
C694QZ	<i>COfiler® and Profiler Plus®</i>					
2				14,15	12,13	9,12
	10,12			11,11	12,12	18,18
		29,32.2		X,X	11,12	22,23
				6,9.3	10,11	17,17

TABLE 1

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

Item 2

CZDATY	<i>Identifiler® Plus, GlobalFiler Express</i>						
	2	12,16	22,25	10,11	14,15	12,13	9,12
		10,12	14,16	18,22	11	12	18
		12,14	29,32.2	16	X	11,12	22,23
			18,27.2	6,9.3	10,11	17	
D3YBBR	<i>Identifiler® PLUS</i>						
	2		22,25		14,15	12,13	9,12
		10,12			11,11	12,12	18,18
		12,14	29,32.2		X,X	11,12	22,23
				6,9.3	10,11	17,17	
D4CKNY	<i>Identifiler® Plus</i>						
	2		22,25		14,15	12,13	9,12
		10,12			11	12	18
		12,14	29,32.2		X	11,12	22,23
				6,9.3	10,11	17	
ENXYFT	<i>AmpFISTR NGM SElect</i>						
	2	12,16	22,25	10,11	14,15		
		10,12	14,16	18,22		12,12	18,18
		12,14	29,32.2	16,16	X,X		22,23
			18,27.2	6,9.3		17,17	
FE2J4U	<i>PowerPlex® Fusion</i>						
	2	12,16	22,25	10,11	14,15	12,13	9,12
		10,12	14,16	18,22	11	12	18
		12,14	29,32.2	16	X	11,12	22,23
	12,13	7,16		6,9.3	10,11	17	
FT4VYT	<i>PowerPlex® Fusion</i>						
	2	12,16	22,25	10,11	14,15	12,13	9,12
		10,12	14,16	18,22	11	12	18
		12,14	29,32.2	16	X	11,12	22,23
	12,13	7,16		6,9.3	10,11	17	
GH2UYU	<i>PowerPlex® Fusion</i>						
	2	12,16	22,25	10,11	14,15	12,13	9,12
		10,12	14,16	18,22	11	12	18
		12,14	29,32.2	16	X	11,12	22,23
	12,13	7,16		6,9.3	10,11	17	
GPHPFN	<i>Identifiler® Plus</i>						
	2		22,25		14,15	12,13	9,12
		10,12			11,11	12,12	18,18
		12,14	29,32.2		X,X	11,12	22,23
				6,9.3	10,11	17,17	

TABLE 1

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

Item 2

HD6PJU	<i>COfiler® and Profiler Plus®</i>					
	2			14,15	12,13	9,12
		10,12		11,11	12,12	18,18
			29,32.2	X,X	11,12	22,23
			6,9.3	10,11	17,17	
HKNTQX	<i>Identifiler® Plus</i>					
	2		22,25	14,15	12,13	9,12
		10,12		11	12	18
		12,14	29,32.2	X	11,12	22,23
			6,9.3	10,11	17	
J9PE7Q	<i>Identifiler® plus</i>					
	2		22,25	14,15	12,13	9,12
		10,12		11,11	12,12	18,18
		12,14	29,32.2	X,X	11,12	22,23
			6,9.3	10,11	17,17	
JGJJYR	<i>COfiler® and Profiler Plus®</i>					
	2			14,15	12,13	9,12
		10,12		11,11	12,12	18,18
			29,32.2	X,X	11,12	22,23
			6,9.3	10,11	17,17	
JJQ2XN	<i>Identifiler® Plus</i>					
	2		22,25	14,15	12,13	9,12
		10,12		11,11	12,12	18,18
		12,14	29,32.2	X,X	11,12	22,23
			6,9.3	10,11	17,17	
JNVXGN	<i>PowerPlex® Fusion 6 C</i>					
	2	12,16	22,25	10,11	14,15	12,13
		10,12	14,16	18,22	11	12
		12,14	29,32.2	16	X	11,12
	12,13	7,16	18,27.2	6,9.3	10,11	
KAULLN	<i>Identifiler® Direct</i>					
	2	-	20,25	-	14,15	12,13
		10,12	-	-	11	12
		12,14	29,32.2	-	X,X	11,12
	-	-	-	6,9.3	10,11	
KEPDUL	<i>Identifiler® ID-DIRECT</i>					
	2		22,25		14,15	12,13
		10,12			11	12
		12,14	29,32.2		X,X	11,12
				6,9.3	10,11	

TABLE 1

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

Item 2

KNZFFL	<i>PowerPlex® Fusion, NGM</i>						
	2	12,16	22,25	10,11	14,15	12,13	9,12
		10,12	14,16	18,22	11,11	12,12	18,18
		12,14	29,32.2	16,16	X,X	11,12	22,23
	12,13	7,16		6,9.3	10,11	17,17	
L6UWHM	<i>COfiler® and Profiler Plus®</i>						
	2				14,15	12,13	9,12
		10,12			11,11	12,12	18,18
			29,32.2		X,X	11,12	22,23
				6,9.3	10,11	17,17	
MV9TBM	<i>Identifiler® Direct</i>						
	2	-	22,25	-	14,15	12,13	9,12
		10,12	-	-	11	12	18
		12,14	29,32.2	-	X,X	11,12	22,23
	-	-	-	6,9.3	10,11	17	
N693UH	<i>Identifiler® Direct</i>						
	2	-	22,25	-	14,15	12,13	9,12
		10,12	-	-	11	12	18
		12,14	29,32.2	-	X,X	11,12	22,23
	-	-	-	6,9.3	10,11	17	
P7V2LK	<i>COfiler® and Profiler Plus®</i>						
	2				14,15	12,13	9,12
		10,12			11,11	12,12	18,18
			29,32.2		X,X	11,12	22,23
				6,9.3	10,11	17,17	
PKFGPK	<i>Identifiler® Plus</i>						
	2		22,25		14,15	12,13	9,12
		10,12			11	12	18
		12,14	29,32.2		X	11,12	22,23
				6,9.3	10,11	17	
RGUDUK	<i>COfiler® and Profiler Plus®</i>						
	2				14,15	12,13	9,12
		10,12			11,11	12,12	18,18
			29,32.2		X,X	11,12	22,23
				6,9.3	10,11	17,17	
TLJBWF	<i>Identifiler® Direct</i>						
	2	-	22,25	-	14,15	12,13	9,12
		10,12	-	-	11	12	18
		12,14	29,32.2	-	X,X	11,12	22,23
	-	-	-	6,9.3	10,11	17	

TABLE 1

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

Item 2

TW2UGC	<i>Identifiler® plus</i>						
	2		22,25		14,15	12,13	9,12
		10,12			11,11	12,12	18,18
		12,14	29,32.2		X,X	11,12	22,23
				6,9.3	10,11		17,17
UEWKAK	<i>PowerPlex® PowerPlex 21</i>						
	2	12,16	22,25		14,15	12,13	9,12
		10,12		18,22	11,11	12,12	18,18
		12,14	29,32.2		X,X	11,12	22,23
	12,13	7,16		6,9.3	10,11		17,17
UJBK8C	<i>PowerPlex® Fusion System, NGMSElect</i>						
	2	12,16	22,25	10,11	14,15	12,13	9,12
		10,12	14,16	18,22	11	12	18
		12,14	29,32.2	16	X	11,12	22,23
	12,13	7,16	18,27.2	6,9.3	10,11		17
VKXJXF	<i>Identifiler® Plus</i>						
	2		22,25		14,15	12,13	9,12
		10,12			11,11	12,12	18,18
		12,14	29,32.2		X,X	11,12	22,23
				6,9.3	10,11		17,17
X2FYEG	<i>PowerPlex® 21</i>						
	2	12,16	22,25		14,15	12,13	9,12
		10,12		18,22	11,11	12,12	18,18
		12,14	29,32.2		X,X	11,12	22,23
	12,13	7,16		6,9.3	10,11		17,17
X9H9LA	<i>PowerPlex® ESI17 Pro, GlobalFiler</i>						
	2	12,16	22,25	10,11	14,15	12,13	9,12
		10,12	14,16	18,22	11	12	18
		12,14	29,32.2	16	X	11,12	22,23
			18,27.2	6,9.3	10,11		17
ZZXNEF							
	2	12,16	22,25	10,11	14,15	12,13	9,12
		10,12	14,16	18,22	11,11	12,12	18,18
		12,14	29,32.2	16,16	X,X	11,12	22,23
			18,27.2	6,9.3	10,11		17,17

TABLE 1

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

Item 3STR

28QJR4	<i>PowerPlex® 16 HS, Power Plex ESX 17</i>					
3STR	15,16,3	21,24	10,14	14,16	12,13	10,11
	10,10	13,14	17,3,21	8,11	9,13	13,19
	16,17	28,30	11,15	X,Y	11,12	19,23
	12,13	7,9	19,30.2	7,9	8,9	16,17
29L2T6	<i>PowerPlex® Fusion System</i>					
3STR	15,16,3	21,24	10,14	14,16	12,13	10,11
	10,10	13,14	17,3,21	8,11	9,13	13,19
	16,17	28,30	11,15	X,Y	11,12	19,23
	12,13	7,9		7,9	8,9	16,17
2QNMTE	<i>PowerPlex® 21</i>					
3STR	15,16,3	21,24		14,16	12,13	10,11
	10,10		17,3,21	8,11	9,13	13,19
	16,17	28,30		X,Y	11,12	19,23
	12,13	7,9		7,9	8,9	16,17
2U64N6	<i>PowerPlex® Fusion Direct</i>					
3STR	15,16,3	21,24	10,14	14,16	12,13	10,11
	10	13,14	17,3,21	8,11	9,13	13,19
	16,17	28,30	11,15	X,Y	11,12	19,23
	12,13	7,9		7,9	8,9	16,17
99Y4F7	<i>PowerPlex® 21</i>					
3STR	15,16,3	21,24		14,16	12,13	10,11
	10,10		17,3,21	8,11	9,13	13,19
	16,17	28,30		X,Y	11,12	19,23
	12,13	7,9		7,9	8,9	16,17
AAPPL2	<i>COfiler® and Profiler Plus®</i>					
3STR				14,16	12,13	10,11
	10,10			8,11	9,13	13,19
		28,30		X,Y	11,12	19,23
				7,9	8,9	16,17
C2U7KY	<i>PowerPlex® Fusion</i>					
3STR	15,16,3	21,24	10,14	14,16	12,13	10,11
	10	13,14	17,3,21	8,11	9,13	13,19
	16,17	28,30	11,15	X,Y	11,12	19,23
	12,13	7,9		7,9	8,9	16,17
C694QZ	<i>COfiler® and Profiler Plus®</i>					
3STR				14,16	12,13	10,11
	10,10			8,11	9,13	13,19
		28,30		X,Y	11,12	19,23
				7,9	8,9	16,17

TABLE 1

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

Item 3STR

CZDATY	<i>Identifiler® Plus, GlobalFiler Express</i>					
3STR	15,16.3	21,24	10,14	14,16	12,13	10,11
	10	13,14	17.3,21	8,11	9,13	13,19
	16,17	28,30	11,15	X,Y	11,12	19,23
			19,30.2	7,9	8,9	16,17
D3YBBR	<i>Identifiler® PLUS</i>					
3STR		21,24		14,16	12,13	10,11
	10,10			8,11	9,13	13,19
	16,17	28,30		X,Y	11,12	19,23
				7,9	8,9	16,17
D4CKNY	<i>Identifiler® Plus</i>					
3STR		21,24		14,16	12,13	10,11
	10			8,11	9,13	13,19
	16,17	28,30		X,Y	11,12	19,23
				7,9	8,9	16,17
ENXYFT	<i>AmpFISTR NGM SElect</i>					
3STR	15,16.3	21,24	10,14	14,16		
	10,10	13,14	17.3,21		9,13	13,19
	16,17	28,30	11,15	X,Y		19,23
			19,30.2	7,9		16,17
FE2J4U	<i>PowerPlex® Fusion</i>					
3STR	15,16.3	21,24	10,14	14,16	12,13	10,11
	10	13,14	17.3,21	8,11	9,13	13,19
	16,17	28,30	11,15	X,Y	11,12	19,23
	12,13	7,9		7,9	8,9	16,17
FT4VYT	<i>PowerPlex® Fusion</i>					
3STR	15,16.3	21,24	10,14	14,16	12,13	10,11
	10	13,14	17.3,21	8,11	9,13	13,19
	16,17	28,30	11,15	X,Y	11,12	19,23
	12,13	7,9		7,9	8,9	16,17
GH2UYU	<i>PowerPlex® Fusion</i>					
3STR	15,16.3	21,24	10,14	14,16	12,13	10,11
	10	13,14	17.3,21	8,11	9,13	13,19
	16,17	28,30	11,15	X,Y	11,12	19,23
	12,13	7,9		7,9	8,9	16,17
GPHPFN	<i>Identifiler® Plus</i>					
3STR		21,24		14,16	12,13	10,11
	10,10			8,11	9,13	13,19
	16,17	28,30		X,Y	11,12	19,23
				7,9	8,9	16,17

TABLE 1

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

Item 3STR

HD6PJU	<i>COfiler® and Profiler Plus®</i>					
3STR				14,16	12,13	10,11
	10,10			8,11	9,13	13,19
		28,30		X,Y	11,12	19,23
				7,9	8,9	16,17
HKNTQX	<i>Identifiler® Plus</i>					
3STR		21,24		14,16	12,13	10,11
	10			8,11	9,13	13,19
	16,17	28,30		X,Y	11,12	19,23
				7,9	8,9	16,17
J9PE7Q	<i>Identifiler® plus</i>					
3STR		21,24		14,16	12,13	10,11
	10,10			8,11	9,13	13,19
	16,17	28,30		X,Y	11,12	19,23
				7,9	8,9	16,17
JGJJYR	<i>COfiler® and Profiler Plus®</i>					
3STR				14,16	12,13	10,11
	10,10			8,11	9,13	13,19
		28,30		X,Y	11,12	19,23
				7,9	8,9	16,17
JJQ2XN	<i>Identifiler® Plus</i>					
3STR		21,24		14,16	12,13	10,11
	10,10			8,11	9,13	13,19
	16,17	28,30		X,Y	11,12	19,23
				7,9	8,9	16,17
JNVXGN	<i>PowerPlex® Fusion 6 C</i>					
3STR	15,16.3	21,24	10,14	14,16	12,13	10,11
	10	13,14	17.3,21	8,11	9,13	13,19
	16,17	28,30	11,15	X,Y	11,12	19,23
	12,13	7,9	19,30.2	7,9	8,9	16,17
KAULLN	<i>Identifiler® Direct</i>					
3STR	-	21,24	-	14,16	12,13	10,11
	10	-	-	8,11	9,13	13,19
	16,17	28,30	-	X,Y	11,12	19,23
	-	-	-	7,9	8,9	16,17
KEPDUL	<i>Identifiler® ID-DIRECT</i>					
3STR		21,24		14,16	12,13	10,11
	10			8,11	9,13	13,19
	16,17	28,30		X,Y	11,12	19,23
				7,9	8,9	16,17

TABLE 1

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

Item 3STR

KNZFFL	<i>PowerPlex® Fusion, NGM</i>						
	3STR	15,16,3	21,24	10,14	14,16	12,13	10,11
		10,10	13,14	17,3,21	8,11	9,13	13,19
		16,17	28,30	11,15	X,Y	11,12	19,23
	12,13	7,9		7,9	8,9	16,17	
L6UWHM	<i>COfiler® and Profiler Plus®</i>						
	3STR				14,16	12,13	10,11
		10,10			8,11	9,13	13,19
			28,30		X,Y	11,12	19,23
				7,9	8,9	16,17	
MV9TBM	<i>Identifiler® Direct</i>						
	3STR	-	21,24	-	14,16	12,13	10,11
		10	-	-	8,11	9,13	13,19
		16,17	28,30	-	X,Y	11,12	19,23
	-	-	-	7,9	8,9	16,17	
N693UH	<i>Identifiler® Direct</i>						
	3STR	-	21,24	-	14,16	12,13	10,11
		10	-	-	8,11	9,13	13,19
		16,17	28,30	-	X,Y	11,12	19,23
	-	-	-	7,9	8,9	16,17	
P7V2LK	<i>COfiler® and Profiler Plus®</i>						
	3STR				14,16	12,13	10,11
		10,10			8,11	9,13	13,19
			28,30		X,Y	11,12	19,23
				7,9	8,9	16,17	
PKFGPK	<i>Identifiler® Plus</i>						
	3STR		21,24		14,16	12,13	10,11
		10			8,11	9,13	13,19
		16,17	28,30		X,Y	11,12	19,23
				7,9	8,9	16,17	
RGUDUK	<i>COfiler® and Profiler Plus®</i>						
	3STR				14,16	12,13	10,11
		10,10			8,11	9,13	13,19
			28,30		X,Y	11,12	19,23
				7,9	8,9	16,17	
TLJBWF	<i>Identifiler® Direct</i>						
	3STR	-	21,24	-	14,16	12,13	10,11
		10	-	-	8,11	9,13	13,19
		16,17	28,30	-	X,Y	11,12	19,23
	-	-	-	7,9	8,9	16,17	

TABLE 1

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

Item 3STR

TW2UGC	<i>Identifiler® plus</i>					
3STR		21,24		14,16	12,13	10,11
	10,10			8,11	9,13	13,19
	16,17	28,30		X,Y	11,12	19,23
				7,9	8,9	16,17
UEWKAK	<i>PowerPlex® PowerPlex 21</i>					
3STR	15,16.3	21,24		14,16	12,13	10,11
	10,10		17.3,21	8,11	9,13	13,19
	16,17	28,30		X,Y	11,12	19,23
	12,13	7,9		7,9	8,9	16,17
UJBK8C	<i>PowerPlex® Fusion System, NGMSElect</i>					
3STR	15,16.3	21,24	10,14	14,16	12,13	10,11
	10	13,14	17.3,21	8,11	9,13	13,19
	16,17	28,30	11,15	X,Y	11,12	19,23
	12,13	7,9	19,30.2	7,9	8,9	16,17
VKXJXF	<i>Identifiler® Plus</i>					
3STR		21,24		14,16	12,13	10,11
	10,10			8,11	9,13	13,19
	16,17	28,30		X,Y	11,12	19,23
				7,9	8,9	16,17
X2FYEG	<i>PowerPlex® 21</i>					
3STR	15,16.3	21,24		14,16	12,13	10,11
	10,10		17.3,21	8,11	9,13	13,19
	16,17	28,30		X,Y	11,12	19,23
	12,13	7,9		7,9	8,9	16,17
X9H9LA	<i>PowerPlex® ESI17 Pro, GlobalFiler</i>					
3STR	15,16.3	21,24	10,14	14,16	12,13	10,11
	10	13,14	17.3,21	8,11	9,13	13,19
	16,17	28,30	11,15	X,Y	11,12	19,23
			19,30.2	7,9	8,9	16,17
ZZXNEF						
3STR	15,16.3	21,24	10,14	14,16	12,13	10,11
	10,10	13,14	17.3,21	8,11	9,13	13,19
	16,17	28,30	11,15	X,Y	11,12	19,23
			19,30.2	7,9	8,9	16,17

Item 3 Paternity Index Results

TABLE 2

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

Item 3PI

29L2T6	[Country] population database					
3PI	0	0	2,403846154	3,353454058	1,383891503	0
	11,62790698	0	0	1,336898396	0	0
	0	0	0	1	1,694915254	3,965107058
	2,816901408	6,097560976		0	0	1,810282404
2QNMT6	NIST-STRBASE					
3PI	0	0		4.6904	1.2893	0
	9.7561		0	1.5361	0	0
	0	0			1.4948	3.2808
	2.3288	2.9586		0	0	1.7612
2U64N6	FBI PopStats					
3PI				3.6075	1.4132	
	9.8039			1.5557		
					1.5969	3.1606
						1.9026
99Y4F7	NIST-STRBASE					
3PI	x	x		4.6904	1.2893	x
	9.7561		x	1.5361	x	x
	x	x		-	1.4948	3.2808
	2.3288	2.9586		x	x	1.7612
C2U7KY	NIST-STRBASE					
3PI			2.3752	4.6904	1.2893	
	9.7560			1.5360		
					1.4947	3.2808
	2.3288	2.9585				1.7611
C694QZ	FBI PopStats					
3PI				3.6075	1.4132	N/A
	9.8039			1.5557	N/A	N/A
		N/A		N/A	1.5969	3.1606
				N/A	N/A	1.9026
CZDATY	FBI PopStats					
3PI				3.61	1.41	
	9.80			1.56		
					1.60	3.16
						1.90
D3YBBR	NIST-STRBASE					
3PI		0		4.87092	1.30171	0
	9.90197			1.47319	0	0
	0	0		N/A	1.51000	3.72828
				0	0	1.77645

TABLE 2

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

Item 3PI

D4CKNY	FBI PopStats					
	3PI			3.61	1.41	
		9.80		1.56		
					1.60	3.16
						1.90
ENXYFT	laboratory specific/[Country]					
	3PI	0.002500	0.020556	2.659574	4.587156	
		11.627907	0.000158	0.002066		0.000831
		0.000004	0.000000	0.000786		4.273504
				0.003378	0.000071	1.851852
FE2J4U						
	3PI		2.3752	4.6904	1.2893	
		9.7560		1.5360		
					1.4947	3.2808
		2.3288	2.9585			1.7611
GH2UYU	NIST-STRBASE					
	3PI		2.3752	4.6904	1.2893	
		9.7560		1.5360		
					1.4947	3.2808
		2.3288	2.9585			1.7611
HKNTQX	[Country] Caucasian database					
	3PI		ex.	4.25	1.39	ex
		11.27		1.64	ex	ex
		ex.	ex.		1.57	3.41
				ex	ex	1.87
J9PE7Q	NIST-STRBASE					
	3PI		0	4.69	1.29	0
		9.76		1.54	0	0
		0	0	1	1.49	3.28
				0	0	1.76
JJQ2XN	NIST-STRBASE					
	3PI		-	2.86	2.23	-
		6.35		1.72	-	-
		-	-	-	1.64	1.60
				-	-	1.91
KAULLN	NIST-STRBASE					
	3PI	-	0.0010	-	4.6860	1.2893
		9.7561	-	-	1.5361	0.0040
		0.0010	0.0010	-	-	1.4948
		-	-	-	0.0000	0.0001
						1.7606

TABLE 2

WebCode Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
	Penta D	Penta E	SE33	TH01	TPOX	vWA
Item 3PI						
MV9TBM	NIST-STRBASE					
3PI	-	0.0010	-	4.6904	1.2893	0.0020
	9.7561	-	-	1.5361	0.0040	0.0030
	0.0010	0.0010	-	-	1.4948	3.2808
	-	-	-	0	0.001	1.7612
PKFGPK	Laboratory Specific Database					
3PI				3.1725	1.4188	
	10.2669			1.6778		
					1.5475	3.2916
						2.0408
TLJBWF	NIST-STRBASE					
3PI	-	0.0010	-	4.6904	1.2893	0.0020
	9.7561	-	-	1.5361	0.0040	0.0030
	0.0010	0.0010	-	-	1.4948	3.2808
	-	-	-	0.0000	0.0001	1.7612
TW2UGC	FBI PopStats					
3PI		0		3.61	1.42	0
	9.18			1.6	0	0
	0	0			1.6	3.16
				0	0	1.87
UJBK8C	[Country] population					
3PI	0,00	0,00	2,659574	4,255319	1,389661	0,00
	14,326648	0,00	0,00	1,300052	0,00	0,00
	0,00	0,00	0,00		1,690046	4,464286
	2,696872	3,612717	0,00	0,00	0,00	1,688619
VKXJXF	FBI PopStats					
3PI				3.6075	1.4128	
	9.8039			1.5557		
					1.5969	3.1606
						1.9026

YSTR Results

TABLE 3

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393	
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533	
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YIndel		
Item 3										
28QJR4	PowerPlex® Y 23	3	14	12,15	13	30	24	11	13	13
			15	12	12	19	18	17	22	13
			12	16	18	23	9	11		
29L2T6	3							11		
CZDATY	Yfiler®, Yfiler Plus	3	14	12,15	13	30	24	11	13	13
			15	12	12	19	18	17	22	13
				16	18	23		11		
D3YBBR	Yfiler®	3	14	12,15	13	30	24	11	13	13
			15	12	12	19	18	17		
						23		11		
FT4VYT	Yfiler®	3	14	12,15	13	30	24	11	13	13
			15	12	12	19	18	17		
						23		11		
GPHPFN	Yfiler®	3	14	12,15	13	30	24	11	13	13
			15	12	12	19	18	17		
						23		11		
JJQ2XN	Yfiler®	3	14	12,15	13	30	24	11	13	13
			15	12	12	19	18	17		
						23		11		
N693UH	Yfiler®	3	14	12,15	13	30	24	11	13	13
			15	12	12	19	18	17	-	-
			-	-	-	23	-	11	-	
TLJBWF	Yfiler®	3	14	12,15	13	30	24	11	13	13
			15	12	12	19	18	17	-	-
			-	-	-	23	-	11	-	

TABLE 3

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YIndel	
Item 3									
TW2UGC	Yfiler® plus 3	14	12,15	13	30	24	11	13	13
		15	12	12	19	18	17	22	13
			16	18	23		11		
UJBK8C	PowerPlex® Y 23 System 3	14	12,15	13	30	24	11	13	13
		15	12	12	19	18	17	22	13
		12	16	18	23	9	11		
X9H9LA	Yfiler® 3	14	12,15	13	30	24	11	13	13
		15	12	12	19	18	17		
					23		11	2	
ZZXNEF	Yfiler® 3	14	12,15	13	30	24	11	13	13
		15	12	12	19	18	17		
					23		11	2	

Additional DNA & PI Results

TABLE 4

Locus	WebCode	Item 1	Item 2	Item 3	Item 3 Paternity Index
D6S1043	2QNMTE	11,17	11,13	11,17	0
	99Y4F7	11,17	11,13	11,17	x
	UEWKAK	11,17	11,13	11,17	
	X2FYEG	11,17	11,13	11,17	
DYF387S1	CZDATY	Not Tested	Not Tested	34,37	
	TW2UGC			34,37	
DYS391	29L2T6			11	
	CZDATY	No Result	No Result	11	
DYS449	CZDATY	Not Tested	Not Tested	31	
	TW2UGC			31	
DYS460	CZDATY	Not Tested	Not Tested	11	
	TW2UGC			11	
DYS518	CZDATY	Not Tested	Not Tested	40	
	TW2UGC			40	
DYS627	CZDATY	Not Tested	Not Tested	22	
YINDEL	CZDATY	No Result	No Result	2	

Paternity DNA Statistics

TABLE 5

WebCode	Combined Paternity Index	Probability of Paternity	Population Database Used
29L2T6	0	0	[Country] population database
2QNMTE	0	0	NIST-STRBASE
2U64N6	746	99.87	FBI PopStats
99Y4F7	0	0	NIST-STRBASE
C2U7KY			NIST-STRBASE
C694QZ	N/A	N/A	FBI PopStats
CZDATY	See Comments	See Comments	FBI PopStats
D3YBBR	0	0	NIST-STRBASE
D4CKNY	see add'l comments	see add'l comments	FBI PopStats
ENXYFT	0	0	laboratory specific/[Country]
GH2UYU			NIST-STRBASE
GPHPFN	0	0	NIST-STRBASE
HD6PJU	N/A	N/A	FBI PopStats
HKNTQX	exclusion	exclusion	[Country] Caucasian database
J9PE7Q	0	0	NIST-STRBASE
JGJJYR			FBI PopStats
JJQ2XN	350.83	%Probability = 99.71576891% (<99.90%)	NIST-STRBASE
JNVXGN	2,33E-47	0 %	NIST-STRBASE
KAULLN	2.63e-23	0% (CPI less than 1, therefore there is no relationship)	NIST-STRBASE
KNZFFL	Exclusion!	Exclusion!	NIST-STRBASE
MV9TBM	2.63e-23	CPI less than 1, therefore there is no relationship.	NIST-STRBASE
P7V2LK	N/A	N/A	FBI PopStats
PKFGPK			Laboratory Specific Database
RGUDUK	N/A	N/A	FBI PopStats
TLJBWF	2.63e-23	0%(CPI less than 1, therefore no relationship)	NIST-STRBASE
TW2UGC	0	0%	FBI PopStats
UJBK8C	0.00	0.00%	[Country] population

TABLE 5

WebCode	Combined Paternity Index	Probability of Paternity	Population Database Used
VKXJXF	N/A	N/A	FBI PopStats
X2FYEG	N/A	N/A	N/A
X9H9LA	No statistic analysis performed	No statistic analysis performed	Local Database
ZZXNEF	Not calculated	Not calculated	NIST-STRBASE

Paternity Conclusions

TABLE 6

WebCode	Conclusions	WebCode	Conclusions
28QJR4	Excluded	L6UWHM	Excluded
29L2T6	Excluded	MV9TBM	Excluded
2QNMTE	Excluded	N693UH	Excluded
2U64N6	Excluded	P7V2LK	Excluded
99Y4F7	Excluded	PKFGPK	Excluded
AAPPL2	Excluded	RGUDUK	Excluded
C2U7KY	Excluded	TLJBWF	Excluded
C694QZ	Excluded	TW2UGC	Excluded
CZDATY	Excluded	UEWKAK	Excluded
D3YBBR	Excluded	UJBK8C	Excluded
D4CKNY	Excluded	VKXJXF	Excluded
ENXYFT	Excluded	X2FYEG	Excluded
FE2J4U	Excluded	X9H9LA	Excluded
FT4VYT	Excluded	ZZXNEF	Excluded
GH2UYU	Excluded		
GPHPFN	Excluded		
HD6PJU	Excluded		
HKNTQX	Excluded		
J9PE7Q	Excluded		
JGJJYR	Excluded		
JJQ2XN	Excluded		
JNVXGN	Excluded		
KAULLN	Excluded		
KEPDUL	Excluded		
KNZFFL	Excluded		

Response Summary		Total: 39
Responses	Not Excluded	0
	Excluded	39
	Inconclusive	0

Kinship DNA Statistics

Is the claim of a sibling relationship supported by the genetic evidence?

TABLE 7

WebCode	Database	Kinship Index	Claim Supported?
28QJR4		1.649.787	Yes, genetic evidence supports the sibling relationship.
2QNMTE	NIST-STRBASE	338368.0071	Yes
C694QZ	FBI PopStats	N/A	N/A
GPHPFN	NIST-STRBASE	7.18747	Yes
J9PE7Q	NIST-STRBASE	337367	Yes
JJQ2XN	NIST-STRBASE	KI (Full Sibling) = 196,990.5337	Yes, support
JNVXGN	NIST-STRBASE	0.99996	Yes it is.
KAULLN	NIST-STRBASE	3.38e5	YES
KNZFFL	NIST-STRBASE	660663.7817	yes, if unrelated is considered as only alternative.
MV9TBM	NIST-STRBASE	3.37E+05	Yes
N693UH		Cumulative LR:3.78, Posterior Probability=79%	No
TLJBWF	NIST-STRBASE	3.37e5	Yes
TW2UGC	FBI PopStats	109496.275	Yes
UJBK8C	[Country] population	99,98969% - full siblings versus unrelated	Yes
VKXJXF	FBI PopStats	2.919	YES
X9H9LA	Local Database	26755	Yes
ZZXNEF	NIST-STRBASE	23316595	Yes

Additional Kinship Statistical Results

TABLE 8

WebCode	Additional Statistical Results
28QJR4	Making the comparison between the genetic profile of the sibling relationship ,is obtained a kinship index of 1.649.787 and a probability fo relationship of 99,9999%. Even if genetic evidence supports the sibling relationship, it would be good to complete the result whith an analysis of mitochondrial DNA to determine if they belong to the same maternal lineage.
2QNMTE	Minimum allele frequency for FGA (allele 28) calculated using $5/2n = 0.0069$
GPHPFN	Two DNA profiles were compared by using the Caucasian population database same as previous sections. There are likely to be sibling because probability by kinship index is greater than 87.78%
J9PE7Q	The kinship index supports the hypothesis that the Brother Profile is the sibling of the Sister Profile. The genotype observed for the Brother Profile is 337367 times more likely to occur in a sibling of the Sister Profile than in someone unrelated to the Sister Profile from the NIST population database.
JJQ2XN	KI (Full Sibling) = 196,990.5337 % Probability = 99.99949236% KI (Half Sibling) = 265,764.9382 % Probability = 99.99962373% Based on the STR analysis of the samples, the genetic data support a full sibling (and half sibling also) relationship between the two samples.
JNVXGN	LR=25875
KAULLN	[Participant created a manually formatted table within the free form text space. This special formatting was not transferable into the final report. Data is presented as is.] Locus Brother Sister Shared Allele Frequency Formula D1S1656 14,17.3 14,17.3 14 17.3 0.0789 0.1330 14.6860 D2S1338 16,26 16,17 16 0.0374 3.5922 D2S441 11,12 12,14 12 0.0471 2.9039 D3S1358 15,18 17,18 18 0.1510 1.0778 D5S818 11,11 11,12 11 0.3560 0.9522 D7S820 9,12 8,9 9 0.1676 0.9958 D8S1179 14,15 14,16 14 0.1662 1.0021 D10S1248 14,16 15,16 16 0.1330 1.1898 D12S391 19,21 21,21 21 0.1288 2.1910 D13S317 11,13 8,13 13 0.1163 1.3248 D16S539 9,10 8,10 10 0.0568 2.4507 D18S51 12,20 14,18 0.2500 D19S433 12,12 12,14 12 0.0706 3.7911 D21S11 28,30 27,31.2 0.2500 D22S1045 11,16 11,16 11 16 0.1399 0.3823 3.8076 Amel X,Y X,X CSF1PO 11,13 10,12 0.2500 FGA 21,28 25,28 28 0.0069 18.3659 PentaD 9,15 9,13 9 0.2216 0.8141 PentaE 5,10 10,10 10 0.0859 3.1604 SE33 18,20 18,20 18 20 0.0734 0.0582 33.3619 TH01 6,9.3 8,8 0.2500 TPOX 8,11 8,11 8 11 0.5249 0.2521 1.9286 VWA 18,18 16,18 18 0.2022 1.4864 Cumulative LR = 3.38411.E+05 Prob 99.9997%
KNZFFL	Additional relationships considered: Halfsibs and Cousins. Kinship index for halfsibs (vs unrelated) = 661637.7508. Kinship index for Cousins (vs unrelated) = 15045.44031. Therefore, based on the results of the DNA-test, a biological relationship between these persons cannot be excluded. However, it is impossible to say if they are full sibs or half sibs, since these relationships are equally likely.
MV9TBM	[Participant created a manually formatted table within the free form text space. This special formatting was not transferable into the final report. Data is presented as is.] Lokus Brother Sister Formula Given frequency KI D1S1656 14,17.3 14,17.3 (1+p+s+2ps)/8ps p=14, q=17.3 0.0789 0.133 14.6860 D2S1338 16,26 16,17 (1+2p)/8p p=16 0.0374 3.5922 D2S441 11,12 12,14 (1+2q)/8q q=12 0.0471 2.9039 D3S1358 15,18 17,18 (1+2s)/8s s=18 0.1510 1.0778 D5S818 11,11 11,12 (1+p)/4p p=11 0.3560 0.9522 D7S820 9,12 8,9 (1+2q)/8q q=9 0.1676 0.9958 D8S1179 14,15 14,16 (1+2p)/8p p=14 0.1662 1.0021 D10S1248 14,16 15,16 (1+2r)/8r r=16 0.1330 1.1898 D12S391 19,21 21,21 (1+q)/4q q=21 0.1288 2.1910 D13S317 11,13 8,13 (1+2u)/8u u=13 0.1163 1.3248 D16S539 9,10 8,10 (1+2r)/8r r=10 0.0568 2.4507 D18S51 12,20 14,18 1/4 0.2500 0.2500 D19S433 12,12 12,14 (1+p)/4p p=12 0.0706 3.7911 D21S11 28,30 27,31.2 1/4 0.2500 0.2500 D22S1045 11,16 11,16 (1+p+s+2ps)/8ps p=11, s=16 0.1399 0.3823 3.8076 AMEL XY XX CSF1PO 11,13 10,12 1/4

TABLE 8

WebCode	Additional Statistical Results
	0.2500 0.2500 FGA 21,28 25,28 (1+2w)/8w w=28 0.0069 18.3000 PENTA D 9,15 9,13 (1+2p)/8p p=9 0.2216 0.8141 PENTA E 5,10 10,10 (1+q)/4q q=10 0.0859 3.1604 SE33 18,20 18,20 (1+p+s+2ps)/8ps p=18, s=20 0.0734 0.0582 33.3619 TH01 6,9.3 8,8 1/4 0.2500 0.2500 TPOX 8,11 8,11 (1+p+s+2ps)/8ps p=8, s=11 0.5249 0.2521 1.9286 VWA 18,18 16,18 (1+r)/4r r=18 0.2022 1.4864 Cumulative LR: 337196.3342 Probability of Sibship: 99.9997%
N693UH	By assuming prior = 50% and Theta = 3% Conclusion: The DNA profiles of "Brother" and "Sister" are not related as siblings. Source: NIST STRBASE Poo. Database
TLJBWF	[Participant created a manually formatted table within the free form text space. This special formatting was not transferable into the final report. Data is presented as is.] Brother Sister Locus Formula Allele Frequency PI 14,17.3 14,17.3 D1S1656 (1+p+s+2ps)/8ps p=14,s=17.3 0.0789 0.133 14.6860 16,26 16,17 D2S1338 (1+2p)/8p p=16 0.0374 3.5922 11,12 12,14 D2S441 (1+2p)/8p p=12 0.0471 2.9039 15,18 17,18 D3S1358 (1+2p)/8p p=18 0.1510 1.0778 11,11 11,12 D5S818 (1+p)/4p p=11 0.3560 0.9522 9,12 8,9 D7S820 (1+2p)/8p p=9 0.1676 0.9958 14,15 14,16 D8S1179 (1+2p)/8p p=14 0.1662 1.0021 14,16 15,16 D10S1248 (1+2p)/8p p=16 0.1330 1.1898 19,21 21,21 D12S391 (1+s)/4s s=21 0.1288 2.1910 11,13 8,13 D13S317 (1+2p)/8p p=13 0.1163 1.3248 9,10 8,10 D16S539 (1+2p)/8p p=10 0.0568 2.4507 12,20 14,18 D18S51 1/4 0.2500 12,12 12,14 D19S433 (1+s)/4s s=12 0.0706 3.7911 28,30 27,31.2 D21S11 1/4 0.2500 11,16 11,16 D22S1045 (1+p+s+2ps)/8ps p=11,s=16 0.1399 0.3823 3.8076 XY XX Amelogenin 11,13 10,12 CSF1PO 1/4 0.2500 21,28 25,28 FGA (1+2p)/8p p=28 5/2n=0.0069 18.3000 9,15 9,13 Penta D (1+2p)/8p p=9 0.2216 0.8141 5,10 10,10 Penta E (1+s)/4s s=10 0.0859 3.1604 18,20 18,20 SE33 (1+p+s+2ps)/8ps p=18,s=20 0.0734 0.0582 33.3619 6,9.3 8,8 TH01 1/4 0.2500 8,11 8,11 TPOX (1+p+s+2ps)/8ps p=8,s=11 0.5249 0.2521 1.9286 18,18 16,18 vWA (1+s)/4s s=18 0.2022 1.4864 Cumulative LR: 337196.3342 Probability of sibship: 99.9997%
TW2UGC	Sibling profiles were compared by using the Caucasian population database in previous sections. These two DNA profiles are likely to be biologically related as sibling (probability of sibling relationship = 99.99%), however to strengthen the genetic evidence it is necessary to complement these results analyzing lineage Markers in this case mitochondrial DNA and analyzing more autosomal STR loci commercially available. Our statistical software uses a minimum allele frequency of (5) observations in the data set. This has occurred at FGA.
UJBK8C	1. Half siblings/Uncle-Nephew/Grandparent/Grandchild versus Unrelated - 99,98878% 2. First cousins versus Unrelated - 99,82650% Statistical calculations are based on the database for the [Country] population. Suggested further research on additional autosomal STR markers and mtDNA.
VKXJXF	The kinship index supports the hypothesis that Profile labeled - Sister is the sibling of Profile labeled - Brother using the reference populations listed. The genotype observed for Profile labeled - Sister is "X" times more likely to occur in a sibling relationship of Profile labeled - Brother than in someone unrelated to Profile labeled - Brother from the reference populations listed where "X" equals: African American - 4.281 Caucasian - 2.919 Hispanic - 13.30
ZZXNEF	At FGA the 28 allele was unobserved in the database. Frequency was calculated using 1/k(N+1) where k = no. alleles at FGA with non zero frequency. N= no. total alleles observed.

Additional Comments

TABLE 9

WebCode	Additional Comments
AAPPL2	This laboratory does not perform statistical analysis in cases of exclusion.
C694QZ	When the alleged father is determined to be excluded as a possible biological parent of the child, our laboratory does not perform statistical calculations for Probability of Exclusion, Parentage Index, or Probability of Parentage. However, when the alleged father is included as a possible biological parent of the child, a statistical calculation is performed and our laboratory would use the FBI Popstats Pop. Database. Our laboratory does not perform kinship DNA analysis.
CZDATY	Items 1, 2, and 3 were analyzed using the Identifiler Plus and GlobalFiler Express kits. Results for YIndel and DYS391 are included under the "Additional DNA" tab. No DNA typing results were obtained for Items 1 and 2 for YIndel or DYS391 and are listed under the "Additional DNA" tab as "No Result." Items 1 and 2 were not tested using a YSTR kit. The remaining YSTR loci listed under the "Additional DNA" tab are reported as "Not Tested" for Items 1 and 2. Item 3 was also analyzed using the Yfiler and Yfiler Plus kits. Loci not listed under the YSTR Kit Specific Loci for Item 3 are included under the "Additional DNA" tab. No Paternity Index (PI) is reported for these Y-chromosome specific loci. Results for YIndel and DYS391 under the "Additional DNA" tab for Item 3 are from the GlobalFiler Express kit. The Yfiler and Yfiler Plus kits do not include YIndel. For Item 3, the PI is listed for individual loci. The PI was left blank on the results form if the individual locus did not have a matching obligate paternal allele. The FBI Popstats Database did not have frequency information for locus D2S441, and the PI for this locus, which does have a matching obligate paternal allele, was also left blank. No Combined Paternity Index value or Probability of Paternity was entered on the "Paternity DNA" tab because the alleged parent was excluded as the biological parent of the child.
D4CKNY	A Parentage Index (PI) value was only reported for loci in which the determined obligate allele(s) was also shared with the Tested Man (item 3 Alleged Father). Since multiple mismatches were observed overall (i.e. at eight of fifteen autosomal loci examined) the PI fields were left intentionally blank (along with Amelogenin). Consequently, the Combined Paternity Index (CPI) and the Probability of Paternity were not calculated since the Tested Man is excluded as a possible biological parent of the Child (item 2).
ENXYFT	In our laboratory for kinship analysis we use mtDNA, X-STR and Y-STR analysis.
HD6PJU	Our laboratory currently does not perform statistical calculations on samples when the alleged father is excluded from being the biological parent of the child at three or more systems.
KAULLN	1. Item 1 and Item 2 and Item 3 were extracted using in-situ method and amplified using Identifiler Direct in the 9700 thermal cycler. 2. Electrophoresis process were carried out by Genetic Analyzer 3130xl for Item 1 to Item 3. 3. Reagent blank, positive control and negative control were carried out along with the analysis and all gave the intended results. 4. The statistical formula were derived by DNA View Statistical Software and calculated using Ms Excel.
KEPDUL	RESULT: by studying the DNA profiles of all three donors we clarify the following:- 1- blood sample labeled with item 3 is the biological mother of the donor of blood stain labeled with item 2. 2- blood sample labeled with item 3 cannot be the biological father of donor of blood stain labeled with item 2.
L6UWHM	In cases of exclusions, our laboratory does not perform statistical analysis. Our laboratory does not perform kinship analysis.

TABLE 9

WebCode	Additional Comments
MV9TBM	1. Item 1, Item 2, and Item 3 were extracted using in-situ method and amplified using AmpFISTR Direct kit. 2. Electrophoresis were carried out using Applied Biosystem 3130xL Genetic Analyzer. 3. Reagent blank, positive and negative control were carried out along with the analysis. 4. The statistical formula were derived by DNA View Statistical Software and calculated using Microsoft Excel.
P7V2LK	For parentage testing, this laboratory does not report any statistical calculations if the alleged parent is excluded as a possible biological parent. Exclusion is concluded if the alleged parent's alleles are not observed at three or more STR loci. This laboratory does not perform kinship analysis.
RGUDUK	Our laboratory does not perform statistical analysis on exclusions.
TLJBWF	1. Item 1, Item 2 and Item 3 were extracted using in-situ method and amplified using AmpFISTR Direct Kit. 2. Item 3 was amplified using Yfiler Kit. 3. Electrophoresis were carried out using Applied Biosystem 3130xL Genetic Analyzer. 4. Reagent blank, positive and negative control were carried out along with the analysis and all gave intended results. 5. The statistical formula were derived by DNA View Statistical Software and calculated using microsoft Excel.
TW2UGC	The Alleged parent (Item 3) is excluded as a possible biological parent of the child (Item 2) based on the DNA results at eight of the fifteen STR loci tested. Our Laboratory does not report statistics for exclusions.
UEWKAK	Please note that our laboratory would not calculate the probability of paternity for an exclusion.
X2FYEG	Information at D5S818 omitted from parentage assessment due to allele designation inconsistency. Paternity Index was not calculated, manual assessment resulted in an exclusion of alleged father as possible biological parent of child.
ZZXNEF	STR amplification kit used: GlobalFiler. It is protocol within our laboratory that if greater than 2 mendelion inconsistencies exist in a paternity pedigree a paternity index is not calculated and it is reported as excluded as the biological parent of the child.

Appendix: Data Sheet

Collaborative Testing Services ~ Forensic Testing Program

Test No. 16-5871: DNA Parentage

DATA MUST BE RECEIVED BY July 11, 2016 TO BE INCLUDED IN THE REPORT

Participant Code:

WebCode:

Accreditation Release Statement

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

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

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

Scenario:

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

Items Submitted (Sample Pack DNP2):

Item 1: Blood Sample from Known Parent (Mother)

Item 2: Blood Sample from Known Child (Daughter)

Item 3: Blood Sample from Alleged Father (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")

* PI = Paternity Index; KI - Kinship Index

Example	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
STR	15,18	12,17	10	14	12	5,13
PI	1.65	3.01	3.16	4.12	2.45	5.65

Please return all pages of this data sheet.

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Part I: DNA ANALYSIS FOR ITEM 1

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

Cofiler®/Profiler Plus® _____ PowerPlex® _____
 Identifiler® _____

	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
STR	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
STR	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
ITEM 1	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
STR	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Penta D	Penta E	SE33	TH01	TPOX	vWA
STR	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

ADDITIONAL DNA RESULTS FOR ITEM 1

(If additional space is needed, copy this page or attach your own form following this layout)

	ITEM 1		ITEM 1
	Alleles		Alleles
_____	<input type="text"/>	_____	<input type="text"/>
_____	<input type="text"/>	_____	<input type="text"/>

Part I: DNA ANALYSIS FOR ITEM 2

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

Cofiler®/Profiler Plus® _____ PowerPlex® _____
 Identifiler® _____

	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
STR	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
STR	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
ITEM 2	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
STR	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Penta D	Penta E	SE33	TH01	TPOX	vWA
STR	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

ADDITIONAL DNA RESULTS FOR ITEM 2

(If additional space is needed, copy this page or attach your own form following this layout)

	ITEM 2		ITEM 2
	Alleles		Alleles
_____	<input type="text"/>	_____	<input type="text"/>
_____	<input type="text"/>	_____	<input type="text"/>

Part I: DNA ANALYSIS FOR ITEM 3

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

Cofiler®/Profiler Plus® _____ PowerPlex® _____
 Identifiler® _____

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

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

YSTR results are for proficiency concordance only

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

YFiler® _____ PowerPlex® Y _____

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

ADDITIONAL DNA RESULTS FOR ITEM 3

(If additional space is needed, copy this page or attach your own form following this layout)

		ITEM 3		ITEM 3	
		Alleles	Paternity Index	Alleles	Paternity Index
_____	_____	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
_____	_____	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Please return all pages of this data sheet.

Part II: PATERNITY DNA STATISTICS

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

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

1) Choose a Population Database:

FBI Popstats Pop. Database

NIST STRBASE Pop. Database

Other Pop. Database: _____

2) Record the Combined Paternity Index value: _____

3) Record the Probability of Paternity: _____

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

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

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

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

Please return all pages of this data sheet.

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Part III: KINSHIP DNA STATISTICS (NON-PARENTAGE)

To be completed if applicable to your laboratory.

The two DNA profiles below are presented as a potential Caucasian Sibling relationship. Compare these profiles to answer the questions using the same population database used in previous sections of the data sheet, given the ethnicity listed above for this kinship scenario.

Profile	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Brother	14,17.3	16,26	11,12	15,18	11,11	9,12
Sister	14,17.3	16,17	12,14	17,18	11,12	8,9

Profile	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
Brother	14,15	14,16	19,21	11,13	9,10	12,20
Sister	14,16	15,16	21,21	8,13	8,10	14,18

Profile	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
Brother	12,12	28,30	11,16	X,Y	11,13	21,28
Sister	12,14	27,31.2	11,16	X,X	10,12	25,28

Profile	PentaD	PentaE	SE33	TH01	TPOX	vWA
Brother	9,15	5,10	18,20	6,9.3	8,11	18,18
Sister	9,13	10,10	18,20	8,8	8,11	16,18

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

2) Is the claim of a Sibling relationship supported by the genetic evidence?

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

Part IV: ADDITIONAL COMMENTS

Comments regarding any part of this Parentage Test.

Any interpretations based on the results obtained should be reported in the Paternity DNA Statistics designated section.

Return Instructions: Data must be received via online data entry, fax (please include a cover sheet), or mail by <i>July 11, 2016</i> to be included in the report. Emailed data sheets will not be accepted.		ONLINE DATA ENTRY: www.cts-portal.com
QUESTIONS?		FAX: +1-571-434-1937
TEL: +1-571-434-1925 (8 am - 4:30 pm EST)		MAIL: Collaborative Testing Services, Inc.
EMAIL: forensics@cts-interlab.com		P.O. Box 650820
www.ctsforensics.com		Sterling, VA 20165-0820 USA

Please return all pages of this data sheet.

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RELEASE OF DATA TO ACCREDITATION BODIES

The following Accreditation Releases will apply only to:

Participant Code:

WebCode:

for Test No. **16-5871: DNA Parentage**

This release page must be completed and received by **July 11, 2016** to have this participant's submitted data included in the reports forwarded to the respective Accreditation Bodies.

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

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

ASCLD/LAB Certificate No. _____

ANAB Certificate No. _____

A2LA Certificate No. _____

Step 2: Complete the Laboratory Identifying Information in its entirety

Signature and Title _____

Laboratory Name _____

Location (City/State) _____

Accreditation Release

Return Instructions

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

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

Please return all pages of this data sheet.

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