



DNA Parentage Test No. 16-5870 Summary Report

This proficiency test was sent to 27 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 24 participants (89% 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 an Aunt/Nephew 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 blood from a male (the actual biological father) donor. 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 January 18th, 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 an Aunt/Nephew 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.

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
1	17,17	19,25	11,11.3	17,18	9,11	9,13
	14,15	13,14	18,20	11,12	10,12	15,17
	14,15	27,31.2	15,16	X,X	11,12	22,23
	*	*	*	9,9.3	11,11	16,18
2	15.3,17	16,19	10,11.3	18,18	11,11	10,13
	13,15	13,14	15,20	8,11	10,11	17,17
	13.2,15	27,27	11,16	X,X	11,12	23,24
	*	*	*	9.3,9.3	11,11	16,17
3	11,15.3	16,18	10,10	16,18	11,13	10,10
	10,13	13,15	15,23	8,12	11,13	15,17
	13.2,15	27,31	11,15	X,Y	10,12	23,24
	*	*	*	7,9.3	8,11	17,18

YSTR Results

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

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	Y Indel	
3	14	13	12	28	23	9	11	13
	16	10	11	22	14	15	*	*
	*	*	*	21	*	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.

Database	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

Please note: A consensus of 10 participants was not achieved for Item 3; medians were not determined due to no consensus.

Summary Comments

The 16-5870 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 Combined Paternity Index (CPI), all 24 participants reported a value ranging between 30 million and 9.5 trillion.

For the Probability of Paternity, 20 out of the 24 participants reported a value greater than or equal to 99.9%. Two participants indicated that this statistic was not reported by their laboratory, and the remaining two did not report any value.

One participant appeared to have switched the reported values of the CPI and Probability of Paternity, which was apparent due to the reported values. The switched values are considered in the above summary statements.

For the Paternity Conclusions (Table 6), all 24 participants reported that the potential father (Item 3) could not be excluded as the potential biological parent of the daughter (Item 2).

For Kinship DNA Statistics (Table 7), six participants reported a Kinship Index value ranging between 854,900 and 10.3 billion. All six participants indicated that the claim of kinship was supported between the maternal Aunt and Nephew.

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						
2BKGXG	<i>PowerPlex® ESI-17 FAST</i>					
1	17,17	19,25	11,11.3	17,18		
	14,15	13,14	18,20		10,12	15,17
	14,15	27,31.2	15,16	X,X		22,23
			16,27.2	9,9.3		16,18
47HELD	<i>Identifiler® Plus</i>					
1		19,25		17,18	9,11	9,13
	14,15			11,12	10,12	15,17
	14,15	27,31.2		X	11,12	22,23
				9,9.3	11	16,18
8WWJY7	<i>AmpFISTR NGM SElect</i>					
1	17,17	19,25	11,11.3	17,18		
	14,15	13,14	18,20		10,12	15,17
	14,15	27,31.2	15,16	X,X		22,23
			16,27.2	9,9.3		16,18
9N24M8	<i>Identifiler® Plus, PowerPlex® ESX17</i>					
1	17,17	19,25	11,11.3	17,18	9,11	9,13
	14,15	13,14	18,20	11,12	10,12	15,17
	14,15	27,31.2	15,16	X,X	11,12	22,23
			16,27.2	9,9.3	11,11	16,18
BB849A	<i>PowerPlex® PP21</i>					
1	17,17	19,25		17,18	9,11	9,13
	14,15		18,20	11,12	10,12	15,17
	14,15	27,31.2		X,X	11,12	22,23
	13,13	12,16		9,9.3	11,11	16,18
C4MMT6	<i>Identifiler® Plus</i>					
1		19,25		17,18	9,11	9,13
	14,15			11,12	10,12	15,17
	14,15	27,31.2		X	11,12	22,23
				9,9.3	11	16,18
CCXPE7	<i>Identifiler® Plus, Direct</i>					
1		19,25		17,18	9,11	9,13
	14,15			11,12	10,12	15,17
	14,15	27,31.2		X	11,12	22,23
				9,9.3	11	16,18
CTK7H3	<i>Identifiler® Direct</i>					
1		19,25		17,18	9,11	9,13
	14,15			11,12	10,12	15,17
	14,15	27,31.2		X,X	11,12	22,23
				9,9.3	11,11	16,18

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						
E8G4J4	<i>PowerPlex® Fusion</i>					
1	17	19,25	11,11.3	17,18	9,11	9,13
	14,15	13,14	18,20	11,12	10,12	15,17
	14,15	27,31.2	15,16	X	11,12	22,23
	13	12,16		9,9.3	11	16,18
EUQ8G7	<i>PowerPlex® 21</i>					
1	17,17	19,25		17,18	9,11	9,13
	14,15		18,20	11,12	10,12	15,17
	14,15	27,31.2		X,X	11,12	22,23
	13,13	12,16		9,9.3	11,11	16,18
FZR76Z	<i>Identifiler® Plus</i>					
1		19,25		17,18	9,11	9,13
	14,15			11,12	10,12	15,17
	14,15	27,31.2		X	11,12	22,23
				9,9.3	11	16,18
HYAV6Y	<i>Identifiler®</i>					
1		19,25		17,18	9,11	9,13
	14,15			11,12	10,12	15,17
	14,15	27,31.2		X	11,12	22,23
				9,9.3	11	16,18
JFDPCY	<i>PowerPlex® Fusion</i>					
1	17	19,25	11,11.3	17,18	9,11	9,13
	14,15	13,14	18,20	11,12	10,12	15,17
	14,15	27,31.2	15,16	X	11,12	22,23
	13	12,16		9,9.3	11	16,18
LP9HXU	<i>Identifiler® Plus</i>					
1		19,25		17,18	9,11	9,13
	14,15			11,12	10,12	15,17
	14,15	27,31.2		X,X	11,12	22,23
				9,9.3	11,11	16,18
LQN2HR	<i>NGM Select</i>					
1	17,17	19,25	11,11.3	17,18		
	14,15	13,14	18,20		10,12	15,17
	14,15	27,31.2	15,16	X,X		22,23
			16,27.2	9,9.3		16,18
NGRL7T	<i>Identifiler® Plus</i>					
1		19,25		17,18	9,11	9,13
	14,15			11,12	10,12	15,17
	14,15	27,31.2		X,X	11,12	22,23
				9,9.3	11,11	16,18

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						
NKRW2T	<i>Identifiler® Plus</i>					
1	19,25			17,18	9,11	9,13
	14,15			11,12	10,12	15,17
	14,15	27,31.2		X	11,12	22,23
				9,9.3	11	16,18
QLF6ZM	<i>PowerPlex® fusion, ESI17, NGM Select</i>					
1	17,17	19,25	11,11.3	17,18	9,11	9,13
	14,15	13,14	18,20	11,12	10,12	15,17
	14,15	27,31.2	15,16	X,X	11,12	22,23
	13,13	12,16	16,27.2	9,9.3	11,11	16,18
TCKNNN	<i>PowerPlex® Fusion</i>					
1	17	19,25	11,11.3	17,18	9,11	9,13
	14,15	13,14	18,20	11,12	10,12	15,17
	14,15	27,31.2	15,16	X	11,12	22,23
	13	12,16		9,9.3	11	16,18
TMHP2R	<i>PowerPlex® 21</i>					
1	17,17	19,25		17,18	9,11	9,13
	14,15		18,20	11,12	10,12	15,17
	14,15	27,31.2		X,X	11,12	22,23
	13,13	12,16		9,9.3	11,11	16,18
UDBAUJ	<i>NGM Select</i>					
1	17,17	19,25	11,11.3	17,18		
	14,15	13,14	18,20		10,12	15,17
	14,15	27,31.2	15,16	X,X		22,23
			16,27.2	9,9.3		16,18
UR8L3N	<i>Identifiler® Plus</i>					
1	19,25			17,18	9,11	9,13
	14,15			11,12	10,12	15,17
	14,15	27,31.2		X	11,12	22,23
				9,9.3	11	16,18
UXXVDL	<i>PowerPlex® Fusion</i>					
1	17	19,25	11,11.3	17,18	9,11	9,13
	14,15	13,14	18,20	11,12	10,12	15,17
	14,15	27,31.2	15,16	X	11,12	22,23
	13	12,16		9,9.3	11	16,18
Y4NY8K	<i>Identifiler® Plus</i>					
1	19,25			17,18	9,11	9,13
	14,15			11,12	10,12	15,17
	14,15	27,31.2		X,X	11,12	22,23
				9,9.3	11	16,18

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

2BKGXG	<i>PowerPlex® ESI-17 FAST</i>					
	2	15.3,17	16,19	10,11.3	18,18	
		13,15	13,14	15,20		10,11
		13.2,15	27,27	11,16	X,X	23,24
			15,27.2	9.3,9.3		16,17
47HELD	<i>Identifiler® Plus</i>					
	2		16,19		18	11
		13,15			8,11	10,11
		13.2,15	27		X	11,12
				9.3	11	16,17
8WWJY7	<i>AmpFISTR NGM SElect</i>					
	2	15.3,17	16,19	10,11.3	18,18	
		13,15	13,14	15,20		10,11
		13.2,15	27,27	11,16	X,X	23,24
			15,27.2	9.3,9.3		16,17
9N24M8	<i>Identifiler® Plus, PowerPlex® ESX17</i>					
	2	15.3,17	16,19	10,11.3	18,18	11,11
		13,15	13,14	15,20	8,11	10,11
		13.2,15	27,27	11,16	X,X	11,12
			15,27.2	9.3,9.3	11,11	16,17
BB849A	<i>PowerPlex® PP21</i>					
	2	15.3,17	16,19		18,18	11,11
		13,15		15,20	8,11	10,11
		13.2,15	27,27		X,X	11,12
		12,13	15,16		9.3,9.3	11,11
C4MMT6	<i>Identifiler® Plus</i>					
	2		16,19		18	11
		13,15			8,11	10,11
		13.2,15	27		X	11,12
				9.3	11	16,17
CCXPE7	<i>Identifiler® Plus, Direct</i>					
	2		16,19		18	11
		13,15			8,11	10,11
		13.2,15	27		X	11,12
				9.3	11	16,17
CTK7H3	<i>Identifiler® Direct</i>					
	2		16,19		18,18	11,11
		13,15			8,11	10,11
		13.2,15	27,27		X,X	11,12
				9.3,9.3	11,11	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 2

E8G4J4	<i>PowerPlex® Fusion</i>						
	2	15,3,17	16,19	10,11,3	18	11	10,13
		13,15	13,14	15,20	8,11	10,11	17
		13.2,15	27	11,16	X	11,12	23,24
	12,13	15,16		9,3	11	16,17	
EUQ8G7	<i>PowerPlex® 21</i>						
	2	15,3,17	16,19		18,18	11,11	10,13
		13,15		15,20	8,11	10,11	17,17
		13.2,15	27,27		X,X	11,12	23,24
	12,13	15,16		9,3,9,3	11,11	16,17	
FZR76Z	<i>Identifiler® Plus</i>						
	2		16,19		18	11	10,13
		13,15			8,11	10,11	17
		13.2,15	27		X	11,12	23,24
				9,3	11	16,17	
HYAV6Y	<i>Identifiler®</i>						
	2		16,19		18	11	10,13
		13,15			8,11	10,11	17
		13.2,15	27		X	11,12	23,24
				9,3	11	16,17	
JFDPCY	<i>PowerPlex® Fusion</i>						
	2	15,3,17	16,19	10,11,3	18	11	10,13
		13,15	13,14	15,20	8,11	10,11	17
		13.2,15	27	11,16	X	11,12	23,24
	12,13	15,16		9,3	11	16,17	
LP9HXU	<i>Identifiler® Plus</i>						
	2		16,19		18,18	11,11	10,13
		13,15			8,11	10,11	17,17
		13.2,15	27,27		X,X	11,12	23,24
				9,3,9,3	11,11	16,17	
LQN2HR	<i>NGM Select</i>						
	2	15,3,17	16,19	10,11,3	18,18		
		13,15	13,14	15,20		10,11	17,17
		13.2,15	27,27	11,16	X,X		23,24
			15,27,2	9,3,9,3		16,17	
NGRL7T	<i>Identifiler® Plus</i>						
	2		16,19		18,18	11,11	10,13
		13,15			8,11	10,11	17,17
		13.2,15	27,27		X,X	11,12	23,24
				9,3,9,3	11,11	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 2

NKRW2T	<i>Identifiler® Plus</i>						
	2	16,19		18	11	10,13	
		13,15		8,11	10,11	17	
		13.2,15	27	X	11,12	23,24	
			9.3	11	16,17		
QLF6ZM	<i>PowerPlex® fusion, ESI17, NGM Select</i>						
	2	15.3,17	16,19	10,11.3	18,18	11,11	10,13
		13,15	13,14	15,20	8,11	10,11	17,17
		13.2,15	27,27	11,16	X,X	11,12	23,24
	12,13	15,16	15,27.2	9.3,9.3	11,11	16,17	
TCKNNN	<i>PowerPlex® Fusion</i>						
	2	15.3,17	16,19	10,11.3	18	11	10,13
		13,15	13,14	15,20	8,11	10,11	17
		13.2,15	27	11,16	X	11,12	23,24
	12,13	15,16		9.3	11	16,17	
TMHP2R	<i>PowerPlex® 21</i>						
	2	15.3,17	16,19		18,18	11,11	10,13
		13,15		15,20	8,11	10,11	17,17
		13.2,15	27,27		X,X	11,12	23,24
	12,13	15,16		9.3,9.3	11,11	16,17	
UDBAUJ	<i>NGM Select</i>						
	2	15.3,17	16,19	10,11.3	18,18		
		13,15	13,14	15,20		10,11	17,17
		13.2,15	27,27	11,16	X,X		23,24
			15,27.2	9.3,9.3		16,17	
UR8L3N	<i>Identifiler® Plus</i>						
	2	16,19		18	11	10,13	
		13,15		8,11	10,11	17	
		13.2,15	27	X	11,12	23,24	
			9.3	11	16,17		
UXXVDL	<i>PowerPlex® Fusion</i>						
	2	15.3,17	16,19	10,11.3	18	11	10,13
		13,15	13,14	15,20	8,11	10,11	17
		13.2,15	27	11,16	X	11,12	23,24
	12,13	15,16		9.3	11	16,17	
Y4NY8K	<i>Identifiler® Plus</i>						
	2	16,19		18	11	10,13	
		13,15		8,11	10,11	17	
		13.2,15	27	X,X	11,12	23,24	
			9.3	11	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

2BKGXG	<i>PowerPlex® ES1-17 FAST</i>					
3STR	11,15.3	16,18	10,10	16,18		
	10,13	13,15	15,23		11,13	15,17
	13.2,15	27,31	11,15	X,Y		23,24
			15,16	7,9.3		17,18
47HELD	<i>Identifiler® Plus</i>					
3STR		16,18		16,18	11,13	10
	10,13			8,12	11,13	15,17
	13.2,15	27,31		X,Y	10,12	23,24
				7,9.3	8,11	17,18
8WWJY7	<i>AmpFISTR NGM SElect</i>					
3STR	11,15.3	16,18	10,10	16,18		
	10,13	13,15	15,23		11,13	15,17
	13.2,15	27,31	11,15	X,Y		23,24
			15,16	7,9.3		17,18
9N24M8	<i>Identifiler® Plus, PowerPlex® ESX17</i>					
3STR	11,15.3	16,18	10,10	16,18	11,13	10,10
	10,13	13,15	15,23	8,12	11,13	15,17
	13.2,15	27,31	11,15	X,Y	10,12	23,24
			15,16	7,9.3	8,11	17,18
BB849A	<i>PowerPlex® PP21</i>					
3STR	11,15.3	16,18		16,18	11,13	10,10
	10,13		15,23	8,12	11,13	15,17
	13.2,15	27,31		X,Y	10,12	23,24
	9,12	11,15		7,9.3	8,11	17,18
C4MMT6	<i>Identifiler® Plus</i>					
3STR		16,18		16,18	11,13	10
	10,13			8,12	11,13	15,17
	13.2,15	27,31		X,Y	10,12	23,24
				7,9.3	8,11	17,18
CCXPE7	<i>Identifiler® Plus, Direct</i>					
3STR		16,18		16,18	11,13	10
	10,13			8,12	11,13	15,17
	13.2,15	27,31		X,Y	10,12	23,24
				7,9.3	8,11	17,18
CTK7H3	<i>Identifiler® Direct</i>					
3STR		16,18		16,18	11,13	10,10
	10,13			8,12	11,13	15,17
	13.2,15	27,31		X,Y	10,12	23,24
				7,9.3	8,11	17,18

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

E8G4J4	<i>PowerPlex® Fusion</i>						
	3STR	11,15.3	16,18	10	16,18	11,13	10
		10,13	13,15	15,23	8,12	11,13	15,17
		13.2,15	27,31	11,15	X,Y	10,12	23,24
	9,12	11,15		7,9.3	8,11	17,18	
EUQ8G7	<i>PowerPlex® 21</i>						
	3STR	11,15.3	16,18		16,18	11,13	10,10
		10,13		15,23	8,12	11,13	15,17
		13.2,15	27,31		X,Y	10,12	23,24
	9,12	11,15		7,9.3	8,11	17,18	
FZR76Z	<i>Identifiler® Plus</i>						
	3STR		16,18		16,18	11,13	10
		10,13			8,12	11,13	15,17
		13.2,15	27,31		X,Y	10,12	23,24
				7,9.3	8,11	17,18	
HYAV6Y	<i>Identifiler®</i>						
	3STR		16,18		16,18	11,13	10
		10,13			8,12	11,13	15,17
		13.2,15	27,31		X,Y	10,12	23,24
				7,9.3	8,11	17,18	
JFDPCY	<i>PowerPlex® Fusion</i>						
	3STR	11,15.3	16,18	10	16,18	11,13	10
		10,13	13,15	15,23	8,12	11,13	15,17
		13.2,15	27,31	11,15	X,Y	10,12	23,24
	9,12	11,15		7,9.3	8,11	17,18	
LP9HXU	<i>Identifiler® Plus</i>						
	3STR		16,18		16,18	11,13	10,10
		10,13			8,12	11,13	15,17
		13.2,15	27,31		X,Y	10,12	23,24
				7,9.3	8,11	17,18	
LQN2HR	<i>NGM Select</i>						
	3STR	11,15.3	16,18	10,10	16,18		
		10,13	13,15	15,23		11,13	15,17
		13.2,15	27,31	11,15	X,Y		23,24
			15,16	7,9.3		17,18	
NGRL7T	<i>Identifiler® Plus</i>						
	3STR		16,18		16,18	11,13	10,10
		10,13			8,12	11,13	15,17
		13.2,15	27,31		X,Y	10,12	23,24
				7,9.3	8,11	17,18	

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

NKRW2T	<i>Identifiler® Plus</i>					
3STR		16,18		16,18	11,13	10
	10,13			8,12	11,13	15,17
	13.2,15	27,31		X,Y	10,12	23,24
				7,9.3	8,11	17,18
QLF6ZM	<i>PowerPlex® fusion, ESI17, NGM Select</i>					
3STR	11,15.3	16,18	10,10	16,18	11,13	10,10
	10,13	13,15	15,23	8,12	11,13	15,17
	13.2,15	27,31	11,15	X,Y	10,12	23,24
	9,12	11,15	15,16	7,9.3	8,11	17,18
TCKNNN	<i>PowerPlex® Fusion</i>					
3STR	11,15.3	16,18	10,10	16,18	11,13	10
	10,13	13,15	15,23	8,12	11,13	15,17
	13.2,15	27,31	11,15	X,Y	10,12	23,24
	9,12	11,15		7,9.3	8,11	17,18
TMHP2R	<i>PowerPlex® 21</i>					
3STR	11,15.3	16,18		16,18	11,13	10,10
	10,13		15,23	8,12	11,13	15,17
	13.2,15	27,31		X,Y	10,12	23,24
	9,12	11,15		7,9.3	8,11	17,18
UDBAUJ	<i>NGM Select</i>					
3STR	11,15.3	16,18	10,10	16,18		
	10,13	13,15	15,23		11,13	15,17
	13.2,15	27,31	11,15	X,Y		23,24
			15,16	7,9.3		17,18
UR8L3N	<i>Identifiler® Plus</i>					
3STR		16,18		16,18	11,13	10
	10,13			8,12	11,13	15,17
	13.2,15	27,31		X,Y	10,12	23,24
				7,9.3	8,11	17,18
UXXVDL	<i>PowerPlex® Fusion</i>					
3STR	11,15.3	16,18	10	16,18	11,13	10
	10,13	13,15	15,23	8,12	11,13	15,17
	13.2,15	27,31	11,15	X,Y	10,12	23,24
	9,12	11,15		7,9.3	8,11	17,18
Y4NY8K	<i>Identifiler® Plus</i>					
3STR		16,18		16,18	11,13	10
	10,13			8,12	11,13	15,17
	13.2,15	27,31		X,Y	10,12	23,24
				7,9.3	8,11	17,18

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

2BKGXG [Country] Frequency database - Caucasian (No FST or Syntenic correction applied)

3PI	7.47	11.11	5.06	3.39		
	1.54	0.80	13.89		1.58	4.41
	33.63	13.31	3.53			3.84
			11.73	1.49		1.78

47HELD FBI PopStats

3PI		16.89		3.06	1.21	3.45
	1.47			5.02	1.82	3.21
	19.01	10.89			0.79	3.62
				1.64	1.96	1.90

8WWJY7 Allele frequencies of the new European Standard Set (ESS) loci in the [Country] Population

3PI	8.35	10.99	7.08	2.90		
	1.50	0.84	10.99		1.63	4.97
	26.12	20.90	3.87			3.87
			17.41	2.00		2.11

9N24M8 NIST-STRBASE

3PI	8.59	13.36	4.75	3.31	1.40	3.90
	1.51	0.82		4.14	1.59	3.61
	50.00	22.52	3.57		0.74	3.72
			12.43	1.44	1.98	1.76

C4MMT6 FBI PopStats

3PI		16.89		3.06	1.21	3.45
	1.47			5.02	1.82	3.21
	19.01	10.89			0.79	3.62
				1.64	1.96	1.90

CCXPE7 NIST-STRBASE

3PI		13.37		3.31	1.40	3.90
	1.52			4.15	1.59	3.61
	72.2	22.56			0.75	3.72
				1.45	1.98	1.76

CTK7H3 NIST-STRBASE

3PI		15.15152		3.28947	1.38504	4.11523
	1.63934			4.42478	1.55763	3.96825
	71.42857	19.23077			0.75529	3.67647
				1.3587	2.05761	1.77936

E8G4J4 NIST-STRBASE

3PI	8.5910	13.3689	4.7505	3.3112	1.4044	3.9032
	1.5169	0.8260	15.6739	4.1493	1.5903	3.6101
	72.2000	22.5225	3.5739		0.7473	3.7230
	2.1486	11.6550		1.4496	1.9833	1.7611

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

EUQ8G7	NIST-STRBASE						
	3PI	8.5911	13.369		3.3113	1.4045	3.9032
		1.5170		15.674	4.1494	1.5903	3.6101
		72.20	22.5225			0.7474	3.7230
		2.1487	11.6550		1.4497	1.9833	1.7612
FZR76Z	FBI PopStats						
	3PI		16.892		3.0600	1.2186	3.4530
		1.4736			5.0251	1.8275	3.2134
		19.011	10.893			0.79847	3.6284
					1.6420	1.9608	1.9026
HYAV6Y	We use in house Excel sheet using FBI stats						
	3PI		16.88		3.05	1.21	3.45
		1.47			5.02	1.82	3.21
		18.99	10.88			0.79	3.62
					1.64	1.96	1.9
JFDPCY	NIST-STRBASE						
	3PI	8.5910	13.3689	4.7505	3.3112	1.4044	3.9032
		1.5169	0.8260	15.6739	4.1493	1.5903	3.6101
		72.2000	22.5225	3.5739		0.7473	3.7230
		2.1486	11.6550		1.4496	1.9833	1.7611
LP9HXU	FBI PopStats						
	3PI		16.886		3.0600	1.2186	3.4530
		1.4736			5.0251	1.8275	3.2134
		18.997	10.893			0.79847	3.6284
					1.6420	1.9608	1.9026
LQN2HR	AB (Applied Biosystem - 'DNAView')						
	3PI	23.36	10.48	6.98	2.87		
		1.49	0.83	10.48		1.62	4.87
		23.36	19.08	3.80			3.80
				16.12	1.99		2.09
NGRL7T	FBI PopStats						
	3PI		16.886		3.0600	1.2186	3.4530
		1.4736			5.0251	1.8275	3.2134
		18.997	10.893			0.79847	3.6284
					1.6420	1.9608	1.9026
NKRW2T	FBI PopStats						
	3PI		16.886		3.0600	1.2186	3.4530
		1.4736			5.0251	1.8275	3.2134
		18.997	10.893			.79847	3.6284
					1.642	1.9608	1.9026

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						
QLF6ZM	Laboratory Database					
3PI	5.9617	5.8430	4.4079	2.4974	1.2835	3.5676
	1.5768	0.8459	8.0338	3.7716	1.6524	3.1365
	11.9534	6.5323	4.1054		0.7927	3.2478
	2.3506	8.8351	8.2831	1.6969	1.6349	1.8978
TCKNNN	FBI PopStats					
3PI	8.4175	16.835	5.5340	3.0600	1.2243	3.4530
	1.4961	0.81780	12.626	4.9261	1.8362	3.2573
	22.422	11.211	3.4819		0.79847	3.6075
	2.3764	11.876		1.6420	1.9608	1.8706
TMHP2R	PP21 [Country] Caucasian Population Database					
3PI	6.04	10.49		2.97	1.32	3.46
	1.57		9.56	3.75	1.74	3.23
	16.24	7.23			0.8	3.56
	2.34	8.25		1.49	1.86	1.91
UDBAUJ	state database					
3PI	8.35	11.04	7.08	2.90		
	1.50	0.84	10.99		1.63	4.98
	26.49	20.90	3.87			3.87
			17.41	2.00		2.11
UR8L3N	Laboratory Specific Database					
3PI		10.5708		3.0339	1.2735	3.6737
	1.5375			4.1050	1.5649	4.0584
	29.0697	10.9170			0.7737	3.6363
				1.7193	1.9282	2.0408
UXXVDL	NIST-STRBASE					
3PI	8.5910	13.3689	4.7505	3.3112	1.4044	3.9032
	1.5169	0.8260	15.6739	4.1493	1.5903	3.6101
	72.2000	22.5225	3.5739		0.7473	3.7230
	2.1486	11.6550		1.4496	1.9833	1.7611
Y4NY8K	[Country] Caucasian database					
3PI		9.63		3.64	1.38	3.75
	1.56			3.73	1.71	4.67
	86.21	14.04			0.78	3.60
				1.78	1.85	1.87

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									
47HELD	Yfiler® Plus 3	14	13	12	28	23	9	11	13
		16	10	11	22	14	15	24	11
			18	16	21		11		
CTK7H3	Yfiler® 3	14	13,13	12	28	23	9	11	13
		16	10	11	22	14	15		
					21		11		
E8G4J4	Yfiler® 3	14	13,13	12	28	23	9	11	13
		16	10	11	22	14	15		
					21		11		
FZR76Z	Yfiler® 3	14	13	12	28	23	9	11	13
		16	10	11	22	14	15		
					21		11		
LP9HXU	Yfiler® 3	14	13	12	28	23	9	11	13
		16	10	11	22	14	15		
					21		11		
LQN2HR	Yfiler® Y Filer Plus 3	14	13	12	28	23	9	11	13
		16	10	11	22	14	15	24	11
			18	16	21		11		
NGRL7T	Yfiler® 3	14	13	12	28	23	9	11	13
		16	10	11	22	14	15		
					21		11		
NKRW2T	Yfiler® 3	14	13	12	28	23	9	11	13
		16	10	11	22	14	15		
					21		11		
QLF6ZM	PowerPlex® Y 23 3	14	13	12	28	23	9	11	13
		16	10	11	22	14	15	24	11
		12	18	16	21	12	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

TCKNNN	Yfiler® 3	14	13	12	28	23	9	11	13
		16	10	11	22	14	15		
					21		11		
UXXVDL	Yfiler® 3	14	13,13	12	28	23	9	11	13
		16	10	11	22	14	15		
					21		11		

Additional DNA & PI Results

TABLE 4

Locus	WebCode	Item 1	Item 2	Item 3	Item 3 Paternity Index
D6S1043	BB849A	13,19	17,19	11,17	
	EUQ8G7	13,19	17,19	11,17	8.2102
	TMHP2R	13,19	17,19	11,17	7.57
DYF387S1	47HELD			37	
	LQN2HR			37	
DYS391	LQN2HR			9	
	TCKNNN			9	
DYS449	47HELD			30	
	LQN2HR			30	
DYS460	47HELD			11	
DYS518	47HELD			38	
	LQN2HR			38	
DYS627	47HELD			19	
	LQN2HR			19	

Paternity DNA Statistics

TABLE 5

WebCode	Combined Paternity Index	Probability of Paternity	Population Database Used
2BKGXG	32,000,000,000	99.99%	[Country] Frequency database - Caucasian (No FST or Syntenic correction applied)
47HELD	34,760,000	99.999997123%	FBI PopStats
8WWJY7	>0.9999	1.29e+011	Allele frequencies of the new European Standard Set (ESS) loci in the [Country] Population
9N24M8	208,544,999,464	99.9999%	NIST-STRBASE
BB849A	7.8 billion		PP21 National Database
C4MMT6	3.47E+7	99.999997%	FBI PopStats
CCXPE7	201273869	99.99%	NIST-STRBASE
CTK7H3	241672090.63656	99.9999995	NIST-STRBASE
E8G4J4	9.50 trillion	99.9%	NIST-STRBASE
EUQ8G7	1 in 5563 billion	Not reported in this laboratory	NIST-STRBASE
FZR76Z	30,000,000	99.999997123%	FBI PopStats
HYAV6Y	35,000,000	Not performed at this Lab	We use in house Excel sheet using FBI stats
JFDPCY	9.50 trillion	99.9	NIST-STRBASE
LP9HXU	34,720,000	99.999997120	FBI PopStats
LQN2HR	7.5e+010	>0.9999	AB (Applied Biosystem - 'DNAView')
NGRL7T	34,720,000	99.999997120%	FBI PopStats
NKRW2T	34,720,000	99.999997120%	FBI PopStats
QLF6ZM	2.7502E+11	>0.9999999999	Laboratory Database
TCKNNN	1,979,000,000,000	99.999999999%	FBI PopStats
TMHP2R	70,300,000,000		PP21 [Country] Caucasian Population Database
UDBAUJ	1.320427747*exp+11	0.999999999924	state database
UR8L3N	36.3 million	99.9%	Laboratory Specific Database
UXXVDL	9.50 trillion	99.9%	NIST-STRBASE
Y4NY8K	176 415 182	100% (reported as greater than 99.99%)	[Country] Caucasian database

Paternity Conclusions

TABLE 6

WebCode	Conclusions	WebCode	Conclusions
2BKGXG	Not Excluded	TMHP2R	Not Excluded
47HELD	Not Excluded	UDBAUJ	Not Excluded
8WWJY7	Not Excluded	UR8L3N	Not Excluded
9N24M8	Not Excluded	UXXVDL	Not Excluded
BB849A	Not Excluded	Y4NY8K	Not Excluded
C4MMT6	Not Excluded		
CCXPE7	Not Excluded		
CTK7H3	Not Excluded		
E8G4J4	Not Excluded		
EUQ8G7	Not Excluded		
FZR76Z	Not Excluded		
HYAV6Y	Not Excluded		
JFDPCY	Not Excluded		
LP9HXU	Not Excluded		
LQN2HR	Not Excluded		
NGRL7T	Not Excluded		
NKRW2T	Not Excluded		
QLF6ZM	Not Excluded		
TCKNNN	Not Excluded		

Response Summary		Total: 24
Responses	Not Excluded	24
	Excluded	0
	Inconclusive	0

Kinship DNA Statistics

Is the claim of an aunt/nephew relationship supported by the genetic evidence?

TABLE 7

WebCode	Database	Kinship Index	Claim Supported?
8WWJY7	Allele frequencies of the new European Standard Set (ESS) loci in the [Country] Population	1.03e10	Yes
CTK7H3	NIST-STRBASE	29669370.7919	Yes
HYAV6Y	We use in house Excel sheet using FBI stats	5,200,000	Yes
LP9HXU	FBI PopStats	854,900	Yes
NGRL7T	FBI PopStats	854,900	Yes
NKRW2T	FBI PopStats	854,900	Yes

Additional Kinship Statistical Results

TABLE 8

WebCode	Additional Statistical Results
8WWJY7	The kinship index is unusual for that kind of relationship due too[sic] very rare alleles in the profiles.
BB849A	Our laboratory does not calculate a statistical value for Aunt/Nephew relationship.
CTK7H3	Maternal Aunt/Nephew profiles were compared by using the Caucasian population database in previous sections. These two DNA profiles are likely to be biologically related as Maternal Aunt/Nephew.
EUQ8G7	This type of relationship between a aunt and nephew is not reported by this laboratory
HYAV6Y	We use in house Excel sheet using FBI stats that only uses Identifiler loci
LP9HXU	The kinship index supports the hypothesis that B Evidence Profile is the nephew of A Reference Profile using the reference populations listed. The genotype observed for B Evidence Profile is "X" times more likely to occur in a nephew of A Reference Profile than in someone unrelated to A Reference Profile from the reference populations listed where "X" equals: African American – 180 THOUSAND; Caucasian – 580 THOUSAND; Hispanic – 850 THOUSAND.
NGRL7T	The kinship index supports the hypothesis that B profile is the Nephew of A profile using the reference populations listed. The genotype observed for B profile is "X" times more likely to occur in a nephew of A profile than in someone unrelated to A profile from the reference populations listed where "X" equals: African American – [180 THOUSAND]; Caucasian – [580 THOUSAND]; Hispanic – [850 THOUSAND].
NKRW2T	The kinship index supports the hypothesis that Profile B is the nephew of Profile A using the reference populations listed. The genotype observed for Profile B is "X" times more likely to occur in a nephew of Profile A than in someone unrelated to Profile A from the reference populations listed where "X" equals: African American - 180 THOUSAND; Caucasian - 580 THOUSAND; Hispanic - 850 THOUSAND.

Additional Comments

TABLE 9

WebCode	Additional Comments
2BKGXG	[Country] frequency database is built into our kinship software and so we were unable to use the US data.
BB849A	The 'alleged Father' (Item 3) possess all of the obligate paternal alleles. In my opinion, it is possible that the 'alleged Father' is the biological Father of the 'Daughter' (Item 2) given that Item 1 is from the 'known Mother'. The statistical weighting in support of this opinion is: -the DNA profile from the 'Daughter' is 7.8 billion times more likely to have occurred if the 'Daughter' is the offspring of the 'known Mother' and 'alleged Father' rather than if the 'Daughter' is the offspring of the 'known Mother' and a random man unrelated to the 'alleged Father'.
E8G4J4	The DYS391 locus is present in both PowerPlex Fusion and Yfiler. The allele call is concordant between both kits.
UXXVDL	No results were obtained for locus DYS391 in female samples Item 1 and Item 2 with the PowerPlex Fusion kit. DYS391 results were concordant between PowerPlex Fusion and Yfiler for Item 3.

Appendix: Data Sheet

Collaborative Testing Services ~ Forensic Testing Program

Test No. 16-5870: DNA Parentage

DATA MUST BE RECEIVED BY March 21, 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 DNP1):

Item 1: Blood Sample from the Known Mother

Item 2: Blood Sample from the Known Daughter

Item 3: Blood Sample from the Alleged Father (Caucasian Race)

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.).

<input type="checkbox"/> Cofiler®/Profiler Plus® _____	<input type="checkbox"/> PowerPlex® _____
<input type="checkbox"/> Identifiler® _____	<input type="checkbox"/> Other _____

	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.).			
<input type="checkbox"/>	Cofiler®/Profiler Plus® _____	<input type="checkbox"/>	PowerPlex® _____		
<input type="checkbox"/>	Identifiler® _____	<input type="checkbox"/>	Other _____		

	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.).

<input type="checkbox"/> Cofiler®/Profiler Plus® _____	<input type="checkbox"/> PowerPlex® _____
<input type="checkbox"/> Identifiler® _____	<input type="checkbox"/> Other _____

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.

		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"/>
ITEM 3		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"/>
	PI	<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"/>
	PI	<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"/>
	PI	<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.).

<input type="checkbox"/> Yfiler® _____	<input type="checkbox"/> PowerPlex® Y _____	<input type="checkbox"/> Other _____
--	---	--------------------------------------

	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"/>
ITEM 3	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"/>
	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"/>	

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 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 potential Hispanic Maternal Aunt/Nephew 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
Maternal Aunt	12,18	12,20	13,14	12,19	7,16	9,13
Maternal Nephew	13,13	14,20	8,14	17,18	16,16	10,11

Profile	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
Maternal Aunt	11,14	12,12	17,25	7,16	11,15	9,9
Maternal Nephew	14,16	9,12	18,25	7,9	9,14	9,10

Profile	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
Maternal Aunt	10,12.2	28,30	9,13	X,X	7,13	28,31.2
Maternal Nephew	12,15.2	26,27	9,9	X,Y	10,14	28,31.2

Profile	PentaD	PentaE	SE33	TH01	TPOX	vWA
Maternal Aunt	8,8	8,9	19,29.2	9.3,9.3	6,11	12,15
Maternal Nephew	8,13	19,21	17,19	9.3,11	6,6	12,15

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

2) Is the claim of a Maternal Aunt/Nephew 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>March 21, 2016</i> to be included in the report.		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. Page 7 of 8

RELEASE OF DATA TO ACCREDITATION BODIES

The following Accreditation Releases will apply only to:

Participant Code:

WebCode:

for Test No. **16-5870: DNA Parentage**

This release page must be completed and received by **March 21, 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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