Collaborative Testing Services, Inc.

FORENSIC TESTING PROGRAM

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Manufacturer's Information

Test No. 26-5872/7: DNA - Parentage

Each sample pack consisted of a collection of known blood samples from four individuals. Participants were asked to analyze these items using their existing protocols.

SAMPLE PREPARATION: All items were prepared from human whole blood which was drawn into EDTA tubes. Stains from different sources were prepared at separate times and were packaged once they were thoroughly dried into separate envelopes.

SAMPLE PACK ASSEMBLY: One of each item was placed into a pre-labeled sample pack envelope and sealed. The sealed envelopes were then packaged in pre-labeled heat seal envelopes and sealed. Completed sample packs were stored at -20°C until shipment.

KINSHIP EXERCISE: The test also included a kinship exercise comparing autosomal DNA profiles from two related individuals, presented as a Caucasian Father/Daughter relationship.

VERIFICATION: Predistribution results were consistent with each other and the manufacturer's preparation information. Consistent allelic results were obtained for all STR and YSTR loci.

		Volumes per Substrate (µL)	
Item	**Donor Information**	**FTA™ Micro Cards (5872)**	**Swabs (5877)**
1	Hispanic Mother	75	100
2	Hispanic Daughter	75	100
3	Hispanic Non-Biological Father	75	100
4	Hispanic Biological Father	75	100

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Amelogenin and STR Results

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

Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
1	15,16	21,22	10,12	17,18	12,13	14,19
	8,11	13,15	13,13	15,18	11,12	13,13
	13,17	12.2,13	29,32.2	15,17	X,X	10,11
	25,26	9,11	8,8	25.2,29.2	7,9	10,11
	18,19	NM	NM	NM	NM	
2	12,15	21,24	10,12	16,18	13,13	12,19
	8,10	13,15	13,15	18,21	11,12	12,13
	13,13	13,16.2	32.2,32.2	16,17	X,X	11,12
	19,26	9,13	8,16	25.2,29.2	7,7	8,10
	17,19	NM	NM	NM	NM	
3	16.3,17.3	20,24	10,11	15,16	11,11	14,19
	8,11	13,14	13,14	18,20	9,12	11,12
	12,15	13,13.2	32.2,33.2	15,16	X,Y	11,12
	24,28	8,10	7,12	20,25.2	6,6	8,11
	15,17	10	19	17	2	
4	12,13	19,24	10,10	16,17	10,13	12,19
	8,10	15,16	14,15	18,21‡	12,13	12,12
	13,15	15.2,16.2	30,32.2	16,16	X,Y	12,12
	19,22	9,13	12,16	15,25.2	7,8	8,8
	16,17	10	18	17	2	

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

‡ Approximately 14% of participants reported "21" or "21,21" at D12S391 for Item 4. Further information will be provided in the Summary Report.

YSTR Results

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

Item	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4
3	36,36	14	10,15	13	29	24	10	13	13
	15	12	12	19	30	16	18	11	23
	38	12	11	19	17	21	23	10	12
4	36,37	14	11,14	13	29	26	10	13	13
	15	12	13	19	31	16	17	11	22
	36	12	13	18	17	20	23	10	12

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Paternity Indices Results

The table below presents the modal (most frequently reported) paternity index (PI) values for the biological father by locus and reference database. Modal values were calculated separately using NIST-STRBASE, FBI PopStats, and participant-submitted "Other" allele frequency databases. Participants should compare their reported PI for each locus against the modal value from the database they used to assist with data review. Data values are presented to three significant figures. Results compiled from predistribution laboratories and a consensus of at least 10 participants.

Item: 4PI	**D1S1656**	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**
FBI PopStats	6.74	7.46	2.19	1.88	5.22
NIST-STRBASE	5.62	6.55	2.68	1.79	4.63
Other	3.55	6.55	2.68	1.96	3.11
	D6S1043	**D7S820**	**D8S1179**	**D10S1248**	**D12S391**
FBI PopStats	-	1.63	1.15	2.05	5.65
NIST-STRBASE	2.43*	1.63	1.24	2.36	4.45
Other	3.43*	1.63	1.10	2.36	4.44
	D13S317	**D16S539**	**D18S51**	**D19S433**	**D21S11**
FBI PopStats	1.21	3.48	2.99	17.4	3.67
NIST-STRBASE	1.10	3.60	4.07	18.2	3.93
Other	1.10	3.60	3.50	18.2	3.93
	D22S1045	**CSF1PO**	**FGA**	**Penta D**	**Penta E**
FBI PopStats	2.70	2.55	5.97	2.43*	4.36*
NIST-STRBASE	2.86	2.67	6.21	3.46	8.14
Other	2.86	2.63	6.21	3.06	8.14
	SE33	**TH01**	**TPOX**	**vWA**	
FBI PopStats	5.90	1.48	1.80	2.22	
NIST-STRBASE	5.90	1.69	2.06	2.03	
Other	4.51	1.68	1.87	2.03	

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

- Results were not received from any participants for the loci indicated.

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Combined Paternity Index Orders of Magnitude

The table below presents the distribution of Combined Paternity Index (CPI) values reported across all participants, grouped by order of magnitude, with the number and percentage of participants falling into each bin reported accordingly. Participants can use this table to compare the magnitude of their reported CPI against the overall distribution observed across the participant population.

CPI Exponent	Participant Count	Percentage
10^{7} (tens of millions)	1	1.0%
10^{8} (hundreds of millions)	1	1.0%
10^{9} (billions)	20	19.8%
10^{10} (tens of billions)	46	45.5%
10^{11} (hundreds of billions)	13	12.9%
10^{12} (trillions)	12	11.9%
10^{13} (tens of trillions)	4	4.0%
10^{14} (hundreds of trillions)	1	1.0%
10^{22} (tens of sextillions)	1	1.0%
10^{23} (hundreds of sextillions)	1	1.0%
10^{36} (undecillions)	1	1.0%

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