



Dear Client,

Thank you for choosing Canadian DNA Services. This narrative summarizes laboratory methods, quality assurance and chain of custody procedures utilized in the analysis of associated samples. In addition, it summarizes samples retention provisions and provides supplemental result interpretive information. This narrative is an integral part of the laboratory report.

Analytical Platform

Paternity test results and conclusions are founded in statistics and probabilities. The greater the number of genetic markers examined, the greater the strength of the genetic evidence and hence the greater reliability of the final result. Canadian DNA Services tests a minimum of 16 DNA markers in a routine relationship testing. The 16 marker technology can achieve a probability of 1 in 40 quintillion. This is the industries gold standard for both the scientific and legal community.

Laboratory Report

The laboratory report identifies the client; dates sampled, received and reported, a laboratory case number and laboratory sample numbers, sample identification, analytical results and result interpretation. Attached to the report is the original chain of custody which has been signed by the laboratory. The comments section of the chain of custody will document any unique circumstances noted at the time of sample receipt. Originals of any photographs submitted are also attached to the report.

All laboratory reports and associated laboratory data undergo two technical reviews, with a final review by a Ph.D. scientist.

Chain of Custody

From the time of sample receipt at the laboratory, to sample return or disposal, sample are maintained in a secure card access controlled environment restricted to authorized personnel only. Chain of custody is documented through the use of electronic bar code scanners linked to the computerized Laboratory Information Management System (LIMS).

Laboratory Methods

Canadian DNA Services utilizes a number of different advanced methods in the course of laboratory analysis. The table below summarizes common analytical methods utilized for various scenarios.



Summary of Analytical Methods

Method	DNA Extraction	DNA Quantification	DNA Analysis
Paternity& Kinship	DNA IQ System	Quantifiler	Identifiler
Y Chromosome Genealogy	DNA IQ System	Quantifiler Y	Yfiler
Y SNP Ancestry	Epicenter	NA	Signet Y-SNP Identification System
Canine	DNA IQ System	Hoefer	StockMarks
Y Chromosome	DNA IQ System	Quantifiler Y	Yfiler

Sample Disposal

Untested portions of samples are stored in our card access controlled secure storage area. Samples from criminal forensics cases will be returned to the client under separate cover approximately 1-2 weeks after completion of case report. Paternity, ancestry, infidelity, and other non-forensic type samples will be stored for a minimum of 6 months following the report date and subsequently disposed.

Quality Assurance

The Quality Assurance System at Canadian DNA Services is modeled after ISO 17025 and designed to meet the diverse requirements of several accreditation bodies and standards, including SCC, AABB, ASCLD, CLIA and DAB. The laboratory complies with the applicable industry guidelines including the Quality Assurance Guidelines for Forensic DNA Testing Laboratories. All paternity exclusions are preformed are confirmed by re-analysis.

Legal Samples

The results of a legal test are designed to stand up in court unchallenged. A common benchmark for this objective is compliance with industry standards, specifically as it relates to sample collection. SCC & AABB has detailed comprehensive sample collection and documentation criteria that should be met for a legal paternity test and should only be handled by a Certified DNA Specialist.



DNA REPORT – PRIVATE TEST

Case 8418926 Name		CHILD Daphnee Meloche		Alleged FATHER Robert Meloche	
Test No.		8418926-20		8418926-30	
Locus	PI	Allele Sizes		Allele Sizes	
D3S1358	1.26	16	17	14	17
vWA	0.91	17	18	15	17
D16S539	1.69	12		9	12
CSF1PO	0.83	11	12	10	11
TPOX	0.93	8	11	8	
D8S1179	2.43	14		13	14
D21S11	1.01	29	30	28	30
D18S51	1.70	15	21	14	15
D2S441	0.97	10	14	11	14
D19S433	1.37	13	15	14	15
TH01	1.64	7	9.3	9.3	
FGA	1.41	21	22	19	21
D22S1045	1.42	15	16	16	
D5S818	1.35	11		11	12
D13S317	4.03	10	13	10	11
D7S820	2.14	10	11	10	11
SE33	25.00	20.2	25.2	20.2	22.2
D10S1248	3.33	14		14	
D1S1656	4.99	11	17.3	11	17.3
D2S1338	4.58	19	25	19	25
Amelogenin		X		X	Y

Interpretation: RN: 1923563

Combined Paternity Index: **593,659** Probability of Paternity: **99.9998%**

The alleged father is not excluded as the biological father of the tested child. Based on testing results obtained from analyses of the DNA loci listed, the probability of paternity is 99.9998%. This probability of paternity is calculated by comparing to an untested, unrelated, random individual of the Caucasian population (assumes prior probability equals 0.50).

Note: Since the samples were not collected under a strict chain of custody by a third neutral party and the Laboratory cannot verify the origin of the samples, this test result may not be defensible in a court of law for the establishment of paternity and other legally related issues. The tested parties' names that may appear on this report have been provided by the client and cannot be verified. The laboratory assumes no responsibility for incorrect or misspelled patient information.

Based on the samples received from the tested parties whose identities cannot be independently verified, I, the undersigned Laboratory Director, declare the genetic data is correct as reported on 1/6/2017.

Guangyun Sun, Ph.D.