

## FORENSIC REPORT

Report #1

Date Issued: 8/31/21

To: Mr. Paul D'Amato  
Attorney at Law  
2900 Fire Road  
Egg Harbor Township, NJ 08234

Date Testing Completed: 8/16/21

DDC Case No.: F19-25058  
New Jersey Transit Authority No.: 15-005939

Subject: Tiffany Valiante (deceased)

The following items were analyzed:

DDC Item No.	New Jersey Authority Item No.	Description	Date Received
01	002	DNA Card from Tiffany Valiante	3/5/21
02	003	Black T-shirt	3/5/21
03	006	White towel	3/5/21
04	009	Headband (torn shirt)	3/5/21
05	007	"A" Iron-on	3/5/21
06	008	Pair of shoes	3/5/21
07	010	Grey sweatshirt	3/5/21
08	004	Folding knife	3/5/21
09	Na	Reference standard from Dianne Valiante	6/1/21
10	Na	Reference standard from Stephen Valiante	6/1/21

*Item 05 ("A" Iron-on) was examined. No further testing was performed.*

Serology Results:

The presumptive results for blood were negative for items 02.A, 02.B, and 02.D (stains on black t-shirt), 03.K, 03.L, 03.M, and 03.N (stains on white towel), 07.A, 07.B, 07.D, 07.E, and 07.F (stains on grey sweatshirt), 08.A, 08.B, 08.C, 08.D, and 08.E (stains on folding knife).

The presumptive result for blood was positive for item 02.C (stain on exterior, front of black t-shirt). A confirmatory test for blood was not performed on item 02.C.

The presumptive result for blood was positive for item 07.C (stain on exterior, back of grey sweatshirt); however, the confirmatory result was negative.

The presumptive and confirmatory results for blood were positive for items 03.A, 03.B, 03.C, 03.D, 03.E, 03.F, 03.G, 03.H, 03.I, 03.J, 03.O, 03.P and 03.Q (stains on white towel).

**Deoxyribonucleic Acid (DNA) Results:**

*Note: Items 04.A.1 (DDC swab of headband), 06.A.1 (DDC swab of outside of right shoe), 06.B.1 (DDC swab of outside of left shoe), 06.C.1 (DDC swab of inside of right shoe), 06.D.1 (DDC swab of inside of left shoe), and 07.H.1 (DDC swabs from cuffs and armpits of grey sweatshirt) were consumed during DNA analysis.*

DNA extraction and human quantification were performed on item 01.B.1 (2<sup>nd</sup> section from DNA Card of Tiffany Valiante). Insufficient male DNA was obtained from this item; therefore, Y-STR analysis was not performed.

DNA extraction and human quantification were performed on items 02.E.1 (DDC swab of exterior, front region of black t-shirt) and 06.A.1 (DDC swab of outside of right shoe). Insufficient DNA was obtained from these items; therefore, further analysis was not performed.

DNA profiling was performed using Polymerase Chain Reaction (PCR) with the GlobalFiler™ amplification kit on items 01.A.1, 02.C.1, 02.F.1, 02.G.1, 03.A.1, 03.B.1, 03.C.1, 03.D.1, 03.E.1, 03.F.1, 03.G.1, 03.H.1, 03.I.1, 03.J.1, 03.O.1, 03.P.1, 03.Q.1, 04.A.1, 06.B.1, 06.C.1, 06.D.1, 07.C.1, 07.H.1, 09.A.1, 10.A.1, and 10.B.1.

DNA profiling was performed using Polymerase Chain Reaction (PCR) with the Yfiler™ Plus amplification kit on items 01.A.1, 03.A.1, 03.B.1, 03.C.1, 03.D.1, 03.E.1, 03.F.1, 03.G.1, 03.H.1, 03.I.1, 03.J.1, 03.O.1, 03.P.1, 03.Q.1, 04.A.1, and 07.C.1.

**Conclusions:**

**Blood Analysis:**

The presence of blood was confirmed on items 03.A, 03.B, 03.C, 03.D, 03.E, 03.F, 03.G, 03.H, 03.I, 03.J, 03.O, 03.P, and 03.Q (stains on white towel).

The presence of blood was indicated, but not confirmed on item 07.C (stain on exterior, back of grey sweatshirt).

The presence of blood was indicated on item 02.C (stain on exterior, front of black t-shirt).

No blood was indicated on items 02.A, 02.B, and 02.D (stains on black t-shirt), 03.K, 03.L, 03.M, and 03.N (stains on white towel), 07.A, 07.B, 07.D, 07.E, and 07.F (stains on grey sweatshirt), 08.A, 08.B, 08.C, 08.D, and 08.E (stains on folding knife).

**STR Analysis:**

The STR DNA profile obtained from item 01.A.1 (section of DNA Card from Tiffany Valiante), consistent with originating from a female donor, was used for comparison to items 09.A.1 (reference standard from Dianne Valiante), 10.A.1, and 10.B.1 (reference standard from Stephen Valiante) for paternity and maternity tests (Refer to DDC Paternity reports dated 6/28/21).

The STR DNA profiles obtained from items 03.A.1, 03.B.1, 03.C.1, 03.D.1, 03.E.1, 03.F.1, 03.G.1, 03.H.1, 03.I.1, 03.J.1, 03.P.1, and 03.Q.1 (sections of stains on white towel) are consistent with originating from the same male donor (Unknown Male Donor A). A comparison can be made if a male reference standard is submitted.

The partial STR DNA profile obtained from item 02.C.1 (section of stain from exterior, front of black t-shirt) is consistent with the DNA profile obtained from Tiffany Valiante (item 01.A.1). This DNA profile is 3.85 octillion times more likely to occur if the DNA is from Tiffany Valiante (item 01.A.1) than if it is from one unknown contributor.

The partial STR DNA profiles obtained from items 02.F.1 (DDC swab of exterior, back region of black t-shirt) and 02.G.1 (DDC swab of piece of black t-shirt) are insufficient for comparison.

The partial, mixed STR DNA profiles obtained from items 03.O.1 (section of stain on white towel) and 04.A.1 (DDC swab of headband) are inconclusive due to insufficient amounts of DNA.

STR DNA profiles were not obtained from items 06.B.1 (DDC swab of outside of left shoe), 06.C.1 (DDC swab of inside of right shoe), 06.D.1 (DDC swab of inside of left shoe), 07.C.1 (section of stain from exterior, back of grey sweatshirt), and 07.H.1 (combined swabs and sections from cuffs and armpits of grey sweatshirt).

Y-STR Analysis:

A Y-STR DNA profile was obtained from item 10.A.1 (Reference standard from Stephen Valiante).

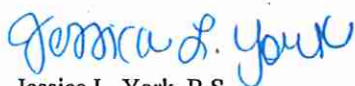
The Y-STR DNA profiles obtained from items 03.A.1, 03.B.1, 03.C.1, 03.D.1, 03.E.1, 03.F.1, 03.G.1, 03.H.1, 03.I.1, 03.J.1, 03.P.1, and 03.Q.1 (sections from stains on white towel) are consistent (Unknown Male Donor A). A comparison can be made if a male reference standard is submitted.

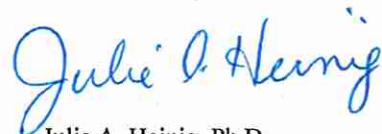
A partial, mixed Y-STR DNA profile was obtained from item 01.A.1 (section from DNA Card from Tiffany Valiante); however, the Y-STR DNA profile is unsuitable for comparison purposes.

Y-STR DNA profiles were not obtained from items 03.O.1 (section of stain on white towel), 04.A.1 (DDC swab of headband), and 07.C.1 (section of stain from exterior, back of grey sweatshirt).

Disposition of Evidence:

The evidence is stored in the DDC Forensic Department.

  
Jessica L. York, B.S.  
Forensic DNA Analyst

  
Julie A. Heinig, Ph.D.  
Forensic Director  
DNA Technical Leader  
Technical Reviewer

# DNA Test Report

DDC Forensic Case No.: F19-25058

Report Date 06/28/2021

Name Race Sample Type Date Received Item No.:	ALLEGED MOTHER		CHILD		
	Dianne Valiante Unspecified Buccal 06/01/2021 09.A.1		Tiffany Valiante Blood Card 03/05/2021 01.A.1		
Locus	MI	Allele Sizes		Allele Sizes	
D3S1358	0.79	16	18	16	17
vWA	-	14	18	14	17
D16S539	1.68	9	11	11	
CSF1PO	0.95	10	12	10	13
TPOX	2.03	11		8	11
D8S1179	5.12	11	13	11	15
D21S11	1.28	29	31,2	29	30,2
D18S51	2.68	16	19	16	
D2S441	1.47	11	14	11	
D19S433	7.20	15		15	15,2
TH01	1.16	7	8	6	8
FGA	4.31	21		21	22
D22S1045	2.39	16		11	16
D5S818	1.76	11	12	11	12
D13S317	0.90	11	14	8	11
D7S820	2.27	11	12	9	12
SE33	2.08	18	30,2	18	24,2
D10S1248	4.50	15	16	15	16
D1S1656	1.97	14		14	15
D2S1338	9.23	20	26	23	26
D12S391	3.83	16	18	16	22
Amelogenin		X		X	

**Results of DNA STR (Short Tandem Repeat) Analysis:**


Deoxyribonucleic acid (DNA) extracts from items 09.A.1 and 01.A.1 were characterized through Polymerase Chain Reaction (PCR) at genetic loci D3S1358, vWA, D16S539, CSF1PO, TPOX, D8S1179, D21S11, D18S51, D2S441, D19S433, TH01, FGA, D22S1045, D5S818, D13S317, D7S820, SE33, D10S1248, D1S1656, D2S1338, D12S391, and Amelogenin.

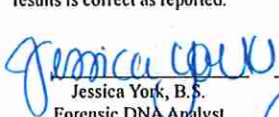
**Conclusion:** Combined Maternity Index: 3,479,193 Probability of Maternity: 99.99997%

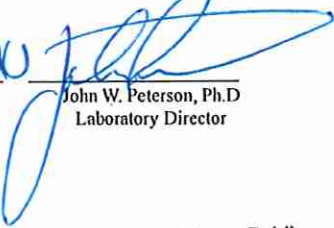
The alleged mother is not excluded as the biological mother of the child. Based on testing results obtained from analyses of the DNA loci listed, the probability of maternity is 99.99997%. This probability of maternity is calculated by comparing to an untested, unrelated, random individual of the Black population (assumes prior probability equals 0.50). See Table 1 for combined maternity indices from multiple population groups. Note: A Maternity Index (MI) was not included for genetic locus vWA due to possible genetic linkage with genetic locus D12S391.

Subscribed and sworn before me on June 28, 2021

I, the undersigned, verify that the interpretation of the results is correct as reported.

  
Jennifer Walter  
Notary Public, State of Ohio  
My Commission Expires May 10, 2026

  
Jessica York, B.S.  
Forensic DNA Analyst

  
John W. Peterson, Ph.D  
Laboratory Director



Jennifer Walter, Notary Public  
In and for the State of Ohio  
My Commission Expires  
5.10.2026


DDC case #: F19-25058

Table 1. Combined Maternity Indices (CMI) for Black, Caucasian, and Hispanic population groups.

Locus	Black (DDC) Maternity Indices	Caucasian (DDC) Maternity Indices	Hispanic (DDC) Maternity Indices
D3S1358	0.79	1.01	0.92
vWA	(4.19)	2.38	3.51
D16S539	1.68	1.66	1.83
CSFIPO	0.95	0.95	0.99
TPOX	2.03	1.94	1.89
D8S1179	5.12	3.32	4.15
D21S11	1.28	1.18	1.17
D18S51	2.68	3.80	4.24
D2S441	1.47	1.47	1.35
D19S433	7.20	2.73	3.38
TH01	1.16	2.25	2.81
FGA	4.31	2.83	3.88
D22S1045	2.39	1.42	1.48
D5S818	1.76	1.37	1.47
D13S317	0.90	0.86	1.12
D7S820	2.27	1.71	1.36
SE33	2.08	3.85	1.61
D10S1248	4.50	3.35	3.45
D1S1656	1.97	6.25	4.15
D2S1338	9.23	13.40	17.90
D12S391	3.83	(10.00)	(7.07)
<b>CMI:</b>	<b>3,479,193</b>	<b>8,645,263</b>	<b>15,485,080</b>

Note: Due to possible genetic linkage between genetic loci vWA and D12S391, the locus with the lower calculated Maternity Index was used in the calculation of the CMI. The Maternity Index for the unused locus is designated with ( ).

Probability of Maternity (prior probability 0.50):      99.99997%      99.99998%      99.99999%

  
\_\_\_\_\_  
John W. Peterson, Ph.D.  
Laboratory Director  
DNA Diagnostics Center

June 28, 2021  
\_\_\_\_\_  
Date

Subscribed and sworn before me on June 28, 2021

  
\_\_\_\_\_  
Jennifer Walter  
Notary Public, State of Ohio  
My Commission Expires May 10, 2026



Jennifer Walter, Notary Public  
In and for the State of Ohio  
My Commission Expires  
5-10-2026

# DNA Test Report

DDC Forensic Case No.: F19-25058

Report Date 06/28/2021

		MOTHER		CHILD		ALLEGED FATHER	
Name		Dianne Valiante		Tiffany Valiante		Stephen Valiante	
Race		Unspecified				Unspecified	
Sample Type		Buccal		Blood Card		Buccal	
Date Received		06/01/2021		03/05/2021		06/01/2021	
Item No:		09.A.1		01.A.1		10.A.1	
Locus	PI	Allele Sizes		Allele Sizes		Allele Sizes	
D3S1358	0.0026	16	18	16	17	15	18
vWA	1.81	14	18	14	17	12	17
D16S539	1.66	9	11	11		9	11
CSF1PO	7.39	10	12	10	13	12	13
TPOX	1.86	11		8	11	8	
D8S1179	5.05	11	13	11	15	10	15
D21S11	28.10	29	31.2	29	30.2	30.2	
D18S51	3.80	16	19	16		12	16
D2S441	1.47	11	14	11		11	11.3
D19S433	12.50	15		15	15.2	13	15.2
TH01	4.18	7	8	6	8	6	
FGA	2.77	21		21	22	19	22
D22S1045	3.51	16		11	16	11	14
D5S818	1.37	11	12	11	12	12	
D13S317	3.90	11	14	8	11	8	12
D7S820	3.18	11	12	9	12	9	11
SE33	7.69	18	30.2	18	24.2	16	24.2
D10S1248	1.64	15	16	15	16	14	16
D1S1656	3.33	14		14	15	15	16.3
D2S1338	4.91	20	26	23	26	23	24
D12S391	-	16	18	16	22	20	22
Amelogenin		X		X		X	Y

**Results of DNA STR (Short Tandem Repeat) Analysis:**

Deoxyribonucleic acid (DNA) extracts from items 09.A.1, 01.A.1, and 10.A.1 were characterized through Polymerase Chain Reaction (PCR) at genetic loci D3S1358, vWA, D16S539, CSF1PO, TPOX, D8S1179, D21S11, D18S51, D2S441, D19S433, TH01, FGA, D22S1045, D5S818, D13S317, D7S820, SE33, D10S1248, D1S1656, D2S1338, D12S391, and Amelogenin.

**Conclusion:** Combined Paternity Index: **151,494,690** Probability of Paternity: **99.999999%**

The alleged father is not excluded as the biological father of the child. Based on testing results obtained from analyses of the DNA loci listed, the probability of paternity is 99.999999%. This probability of paternity is calculated by comparing to an untested, unrelated, random individual of the Caucasian population (assumes prior probability equals 0.50). See Table 1 for combined paternity indices from multiple population groups. Note: A Paternity Index (PI) was not included for genetic locus D12S391 due to possible genetic linkage with genetic locus vWA. Note: One possible mutation was observed. The mutation frequency was included in the calculation of the probability of paternity.

Subscribed and sworn before me on June 28, 2021

I, the undersigned, verify that the interpretation of the results is correct as reported.

*Jennifer Walter*  
Jennifer Walter  
Notary Public, State of Ohio

*Jessica York*  
Jessica York, B.S.  
Forensic DNA Analyst

*John W. Peterson*  
John W. Peterson, Ph.D.  
Laboratory Director

My Commission Expires May 10, 2026



Jennifer Walter, Notary Public  
In and for the State of Ohio  
My Commission Expires  
**5.10.2026**

DDC case #: F19-25058

Table 1. Combined Paternity Indices (CPIs) for Black, Caucasian, and Hispanic population groups.

Locus	Black (DDC) Paternity Indices	Caucasian (DDC) Paternity Indices	Hispanic (DDC) Paternity Indices
D3S1358	0.0026	0.0026	0.0026
vWA	2.26	1.81	1.90
D16S539	1.68	1.66	1.83
CSF1PO	10.70	7.39	9.66
TPOX	3.08	1.86	2.03
D8S1179	2.46	5.05	3.53
D21S11	63.20	28.10	42.30
D18S51	2.68	3.80	4.24
D2S441	1.47	1.47	1.35
D19S433	9.92	12.50	6.79
TH01	6.87	4.18	3.64
FGA	2.81	2.77	3.53
D22S1045	4.60	3.51	7.30
D5S818	1.68	1.37	1.44
D13S317	18.10	3.90	5.77
D7S820	4.26	3.18	5.76
SE33	20.00	7.69	16.70
D10S1248	1.76	1.64	1.49
D1S1656	3.14	3.33	3.32
D2S1338	5.04	4.91	3.61
D12S391	(12.4)	(5.00)	(7.62)
CPI:	12,666,678,327	151,494,690	1,377,347,224

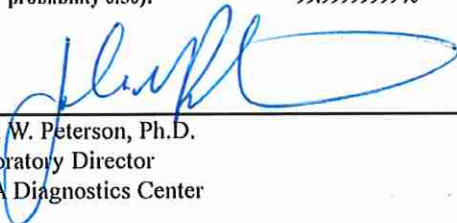
Note: Due to possible genetic linkage between genetic loci vWA and D12S391, the locus with the lowest calculated Paternity Index (PI) was used in the calculation of the CPI. The PI for the unused locus is designated with ( ).

Probability of Paternity  
(prior probability 0.50):

99.9999999%

99.999999%


99.9999999%

  
John W. Peterson, Ph.D.  
Laboratory Director  
DNA Diagnostics Center

June 28, 2021

Date

Subscribed and sworn before me on June 28, 2021

  
Jennifer Walker  
Notary Public, State of Ohio  
My Commission Expires May 10, 2026



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