



October 1, 2019

Dear Ms. Cherokee,

This **Basic American Indian Test** completes your order **C1234**. Any population names or terms highlighted in your PDF are clickable. You can follow the links to get more information or an explanation.

May we suggest that you upgrade to the full DNA Fingerprint Plus for more information? You may do so now at a discount by ordering our [Mid Upgrade](#). There is no need to resample. This includes your top 50 specific world and top 20 European populations, a map highlighting your ancestry, your megapopulations, and an individualized analysis. Check out FAQs about the DNA Fingerprint Test on the website. Remember, getting your results is just the beginning of a lifelong learning process. The state of DNA science is always progressing!

Now that you know your results you may wish to visit [DNA Ancestor Communities](#). Here you can meet others from the same corner of the world, upload pictures, post family stories and genealogies and follow one or more discussions in several different forums, including World, Europe, Melungeon, Cherokee and Jewish. It's free, so join today!

Please visit our website dnaconsultants.com to learn about our other tests available to enhance your research. Also please visit [Primeval DNA](#), where we are introducing a new line of genomic tests. These include Paleo DNA Test, allowing you to compare your personal genome to that of Mal'ta Boy, Kennewick Man, Montana Boy and Ötzi the Ice Man, one on one without filters or interpretations.

We hope you enjoy your report for years to come and thank you for entrusting us with your DNA testing needs. [Certificates](#) are available for any result named in your report, along with a large selection of [books](#) to help you pursue your interests. Remember you have a 10% discount on any future orders with the code **dnaplus**. This discount never expires, and you can pass it on to family and friends.

Best Regards,

Sue

Susan Levin
Associate Investigator, [DNA Consultants](#)
Email suel@dnaconsultants.com

Call toll-free (888) 806-2588 (within the U.S and Canada) or 480-292-9820 (international)





Mary Cherokee

Basic American Indian DNA Fingerprint Test

C1234 – xxxxxxxx

Native American populations appear in our database in three sections: World Matches, Megapopulations, and Markers. Within these sections there are more than sixty possible indicators of Native American ancestry. In the report below, each section is described, and your matches and their strengths are identified.

Based on your results, it is likely you have moderate amounts of American Indian ancestry.

World Matches

The scores shown in green, blue and yellow (see Technical Notes) were compared with profile frequencies for more than 500 populations from around the world stored in our computer program atDNA 10.3. The following populations—though not in strict order of importance—proved to be the leading matches for you on a multi-locus basis. American Indian populations appear in red. The n-number (n=109, n=228, etc.) reflects the number of participants in the sample used to represent the population in the published study. For more information, links and representative examples of any given ancestry, click on the linked population or see [All Populations](#). See also [Tribal Populations Doubled, Enrolled Cherokees among Those Added](#) (news, July 27, 2018).

Rank	World Population Matches
1	Native American - Michigan (n = 29)
2	U.S. Cherokee Admixed (n=62)
3	White - Connecticut (n = 179)
4	Belgian (n = 100)
5	Belgian (n = 198)
6	Malta (n=157)
7	Hispanic - Florida (n = 100)
8	Romanian - Transylvanian - Szekler (n = 257)
9	White - Canadian (n = 83)
10	Argentinian - Chaco (n = 56)
11	Polish (n = 412)
12	White - Canadian (n = 164)
13	Spanish - Canary Islands (n = 240)
14	White - Kentucky (n = 349)

15	White - California (n = 75)
16	Croatian (n = 105)
17	Hispanic - Florida (n = 120)
18	Russia - Novgorod (n = 59)
19	Saharawis (n = 59)
20	New Zealand Caucasian (n = 17675)
21	Nepalese (n = 953)
22	Northern Australian - White (n = 4850)
23	Polish - Northern (n = 202)
24	White - Marion County, Indiana (n = 170)
25	White - Minnesota (n = 75)
26	Belgian - Flanders (Dutch) (n = 222)
27	Brazilian - Belem Amazonians (n = 325)
28	White - Maine (n = 151)
29	White - Canadian (n = 293)
30	Belarusian (n = 176)
31	Arabs (Palestinian & Related) (n = 100)
32	Arab - Damascus, Syria (n = 100)
33	White - U.S. (n = 302)
34	White - North Carolina (n = 372)
35	Romanian - Transylvania/Banat (n=219)
36	Poland - Lodz (n = 1000)
37	Bosnian (n = 210)
38	Belgian - Flemish (n = 231)
39	Hungarian (n = 4213)
40	White - U.S. (n = 102)
41	Australian - Western (n = 2645)
42	Czech (n = 1141)
43	Romanian - Transylvanian - Csango (n = 220)
44	White - Swiss (n = 206)
45	Native American - Lumbee (n = 106)
46	White - Michigan (n = 80)
47	Brazilian - Bahia (n = 150)
48	White - U.S. (n = 172)
49	Hungarian - Vojodina (n = 291)
50	Azerbaijan (n = 285)

Megapopulations: The Bottom Line

Megapopulations are geographic groups of world populations. In your case, American Indian was ranked at #8 and North Asian at #11 out of 22.

Native American Marker Ethnic Panel

These markers correlate at a rate of 80% with probable ethnic ancestry as indicated. They reflect major human migrations as depicted on the following map. Since you receive one allele (unit of human

variation) from one parent and one from the other, you can potentially have two markers, one or none. It is not possible to say which parent you get a marker from in any instance, and the fact that you do not have a marker does *not* mean that you lack that ancestry. Due to the nature of autosomal DNA, one sibling can get a marker and another could miss getting it.

Marker	Allele	Allele
NATIVE AMERICAN I		
NATIVE AMERICAN II	✓	

Technical Notes

Genetic systems known as a DNA fingerprint were analyzed at an accredited DNA testing lab. Testing revealed a unique personal [profile](#). The table below shows you how your lab results look. The numbers (alleles) reflect your genetic inheritance from all previous generations and produce a picture of your overall ancestry and ethnicity once entered into our computer program [atDNA](#). Your alleles from both parents are represented on the chart, although it is not possible to determine which allele on each line came from which parent. Locus is the location on the chromosome for these alleles, or variations, also known as STRs, or [Short Tandem Repeats](#).

Your Genetic Profile

<i>Locus</i>	<i>Alleles</i>		<i>Typical Range</i>
D8S1179	11	12	7 - 24
D21S11	28	30.2	12 - 41.2
D7S820	10	13	5 - 17
CSFIPO	11	12	6 - 18
D3S1358	14	18	9 - 21.1
THO1	8	9.3	4 - 13.3
D13S317	8	12	5 - 17
D16S539	8	12	4 - 20
D2S1338	17	17	10 - 28
D19S433	14	14.2	9 - 19.2
VWA	16	16	8 - 24
TPOX	8	12	5 - 16
D18S51	12	19	7 - 31
D5S818	13	13	6 - 17
FGA	22	25	6 - 48.2

Population and Ethnicity Notes

Tribal affiliations cannot always be determined from the Native American matches, as types of Native American DNA are distributed all across the Americas. Some, moreover, may be deep, shared ancestry.

Hispanic matches (including Brazilian) do not necessarily indicate Latin American ancestry but may signal rather a mixture of Iberian and Native American ancestry. Asian is a common deep ancestral match for anyone with Native American ancestry, particularly North Asian. As proved by fossils, modern Europeans and Native Americans share deep ancestry in the Finno-Uralic-Baltic region of northern Europe (Raghavan et al., 2014).

Remember: results do not equal percentages. They show only that your profile, on the face of it, occurs with a relatively high frequency in the populations indicated. You may order a [Deluxe American Indian Ancestry Certificate](#) listing the American Indian matches on this report. We suggest also that you add our [Rare Genes from History Upgrade](#) and consider purchasing a [Mid Upgrade](#) to obtain full information about your autosomal ancestry. There is no need to be resampled.

Susan Levin

Associate Investigator

[DNA Consultants](#)

October 1, 2019

Disclaimers

This DNA Test is a probabilistic prediction of ancestry for personal knowledge only. It is a non-chain of custody form of testing and is not intended for legal or official purposes. Its results may or may not confirm expected ethnic composition, family history or genealogical determinations. Alone, it may not be used to prove identity, biological relationships, nationality, citizenship, immigration or tribal enrollment.

NATIVE AMERICAN I. This marker is inherited by an individual who has some degree of Native American ancestry. Often it comes from only one parent. As with other markers, if you didn't get it, that does not mean you don't have any Native American ancestry. Pairs of markers ([alleles](#)) are reshuffled from generation to generation, and it could have been lost. You may have it, but a sibling might not. By "Native American" is meant any of the indigenous groups who lived in either North or South America before Columbus. It is the same designation as [American Indian](#). Native American DNA is so distinctive that this test can detect even small amounts of it because of multigenerational interbreeding and effective conservation of admixture markers. *Studies show about 80% of modern-day North and South American indigenous peoples have at least one of these markers.* NA I is strong throughout the Americas, from Apaches and Algonquian Indians to Mexican and Peruvian Indians.

NATIVE AMERICAN II. Similar to Native American I but found typically in people who are half or less Native American and about half Iberian with sometimes a lesser amount of Sub-Saharan African, i.e., Hispanic or Latino.

References and Suggestions for Further Reading

1. Butler, John M. (2010). *Fundamentals of Forensic DNA Typing*. Amsterdam: Elsevier. Authoritative treatment endorsed by the National Institute of Standards and Technology.
2. Cavalli-Sforza, Luigi Luca and Francesco Cavalli-Sforza (1995). *The Great Human Diasporas* (New York: Basic). Wonderful, readable classic on human genetics and prehistory by father and son.

3. S. Kanthaswamy et al, "Native American Population Data Based on the Globalfiler Autosomal STR loci," *Forensic Science International: Genetics* 24 (2016):e12-e13.
4. Lazaridis, I. et al. (2014). "Ancient Human Genomes Suggest Three Ancestral Populations for the Present-day Europeans." *Nature* 513(7518):409-13.
5. Moreno-Mayar, V. et al. (2018). "Early human dispersals within the Americas." *Science* 362(6419):eaav262.
6. Raghavan, M. et al. (2015). "Genomic Evidence for the Pleistocene and Recent Population History of Native Americans." *Science* 349, aab3884.
7. Raghavan, M. et al. (2014). "Upper Palaeolithic Siberian Genome Reveals Dual Ancestry of Native Americans." *Nature* 505:87-91.
8. Reich, D. et al. (2012). "Reconstructing Native American Population History." *Nature* 488:370-4.
9. Yates, Donald N. and Teresa A. Yates (2014). *Cherokee DNA Studies: Real People Who Proved the Geneticists Wrong*. DNA Consultants Series on Consumer Genetics, 1. Phoenix: Panther's Lodge Publishers.

Glossary of Terms Used in This Report

<https://dnaconsultants.com/dna-glossary/>

Statement on Ethnicity

Allelic population analysis is a science still in the early stages of development. As our understanding of human history and prehistory improves and more specific markers are discovered for distinct populations, we can expect the accuracy of prediction of the ethnic constituents in our ancestry to increase.

Reliability

While the laboratory methods used to determine your DNA markers are completely accurate and their statistical analysis is reliable, interpretation of the numerical results is subjective. Conclusions will vary. To form more confident opinions, we suggest that you combine the findings in this report with other testimony, such as that of DNA haplotypes, genealogical records and family history.

Confidentiality

Your testing, results and this report are 100% secure and confidential. They are shared with no one.

Following Up

Join a Forum at [DNA Communities](#) for free. Just follow the prompts to register and set your preferences. Begin exploring your results and sharing your genealogy with others. Choose from European, World, Native American, Hispanic, Melungeon, African, Jewish and Gypsy/Roma discussions. Like us on [Facebook](#) and follow the current posts there. Visit our [blog](#) for interesting reviews of news and research about genetics and ancestry tracing.

[Primeval DNA](#) lets you compare your personal genome to the DNA recovered from individuals who lived hundreds and thousands of years ago. Tests include Ancient Israelites, Kennewick Man, Mal'ta Boy and Minoans and Mycenaeans.

