BOTTOM LINE:

UNDERWOOD is not substantially similar to ARIAN. There are a few points of similarity between UNDERWOOD and ARIAN:

The strongest points of similarity are:

> Both songs use the same five (5) words in a row: "I am invincible, unbreakable, unstoppable" at the beginning of each chorus.
>
> In UNDERWOOD, the 6th word of the chorus is "unshakeable."
> In ARIAN, what follows the 5th word is "nothing's gonna shake me" which is identical in meaning to "unshakeable," heard in UNDERWOOD.
>
> Both songs feature women vocalists.
> Both songs are in minor keys.
> Both songs are nearly identical in tempo.

These points of similarity are insignificant, however, as none of the above, individually or collectively, are copyrightable.

The most important differences between the songs and what reveals that UNDERWOOD is not substantially similar to ARIAN are:

> There is no protectable melodic expression between the choruses of UNDERWOOD and ARIAN.
>
> There is no protectable harmonic expression between the choruses of UNDERWOOD and ARIAN. Both songs feature different chord progressions.
>
> The words, "invincible, unbreakable, unstoppable," that are in common between the choruses of UNDERWOOD and ARIAN are not original and subject to copyright protection. In fact, the words, "invincible, unbreakable, unstoppable" occur in "Bloodfeather" by Highly Suspect (2015) released before ARIAN (2017) and UNDERWOOD (2018). Variants of these three words occur in numerous songs recorded before ARIAN and UNDERWOOD also. (This will be detailed below.)

A musical comparison between the two works reveal no substantive similarities but instead significant differences. Analysis shows that there are no copyright-significant points of similarity - melodic, harmonic, lyric or structural - between ARIAN and UNDERWOOD. The

only elements found similar between ARIAN and UNDERWOOD are commonplace and not subject to copyright protection.

A N A L Y S I S

1. I have been asked to prepare a comparative musicological analysis between two works with regard to whether there is any infringement of copyright, or any concern with respect to intellectual property (IP), and to offer my professional opinion as to the extent, if any, of their similarity, and any IP concern. The two works at issue are:

ARIAN

and

UNDERWOOD

2. To perform the work necessary to answer the questions of copyright/IP infringement in this matter:

a. I listened to and analyzed ARIAN and UNDERWOOD;

b. I conducted a prior and contemporary musical sources search using the computer database I created containing melodies, chord progressions and other musical aspects of more than 20,000 musical works, as well as another computer database I created containing melodies chord progressions and other musical aspects from many of the 80,000 recordings in my iTunes library, and listened to recordings from my personal collection of more than 9,000 CD's. I did this to determine the significance, originality and copyright protectability of any musical elements common to both works, to place the two works within the context of popular music, and to compare the works to others that have been involved in music copyright infringement/ intellectual property actions. The works contained in this database, as well as my personal collection of CD's, are from numerous musical styles including popular music, rock, country, jazz, rhythm & blues, blues, soul, urban, hip hop/rap, punk, gospel, folk, classical, contemporary classical, EDM and world music styles. I compiled this database over the course of more than 35 years and not in preparation for conducting a prior musical sources search for my opinion in this matter. I have personally transcribed and analyzed all of the works contained in these databases.

3. My methodology for comparative musicological analysis is to examine the style, sound, subject matter, lyrics, tempo, tonality, form, harmony and melody of each work in question, as appropriate, and compare and evaluate the works with careful consideration of prior and contemporary musical sources. (I define "prior musical source" as music that has been composed prior to ARIAN and UNDERWOOD. I define "contemporary musical source" as music that has been composed at the same time or after ARIAN and UNDERWOOD. Prior and contemporary musical sources are used to assist in determining the originality and copyright protectability of the musical, lyrical and structural elements in this matter.)

4. I listened to music from my extensive collection of more than 100,000 compositions/songs, as well as Internet and radio resources and more.

5. I researched my original writings and analyses. As necessary, I researched books, journals, scores, websites, blogs, posts, media and any other resources that could be useful in forming and expressing my opinion.

6. As is essential for a music expert, I analyzed UNDERWOOD and ARIAN.

7. In my opinion, UNDERWOOD is not substantially similar to ARIAN. As indicated above, this conclusion is based upon my careful analysis of the music of UNDERWOOD and ARIAN, my search for prior and contemporary music, and comparison of these works to others that have been involved in music copyright infringement actions.

8. In short, my search for prior and contemporary music lead to the conclusion that the musical elements that are similar between UNDERWOOD and ARIAN are common and unoriginal, and not subject to copyright protection. As such, their occurrence is insignificant in the music plagiarism context.

KEY

There is no protectable expression between UNDERWOOD and ARIAN with respect to key.

UNDERWOOD is in the Key of G# minor.
ARIAN is in the Key of E minor.

TEMPO

ARIAN and UNDERWOOD are essentially identical in tempo. This fact is insignificant with respect to copyright, however.

There are 90 beats per minute in ARIAN.
There are 91 beats per minute in UNDERWOOD.

HARMONY (CHORDS)

There is no protectable expression between ARIAN and UNDERWOOD with respect to harmony and chord progressions.

ARIAN and UNDERWOOD are different in terms of chord progressions. Both exhibit chord progressions that are commonplace and not subject to copyright protection.

ARIAN:	i	bVI	bIII	bVII
UNDERWOOD:	i	bIII	bVII	v

LYRICS

There is no protectable expression between ARIAN and UNDERWOOD with respect to lyrics. As noted above, ARIAN and UNDERWOOD share the same five (5) words:

"I am invincible, unbreakable, unstoppable"

In order to determine the significance, originality and copyright protectability of the three (3) key words of ARIAN and UNDERWOOD - invincible, unbreakable, unstoppable - and place them within the context of popular music, I have compared ARIAN and UNDERWOOD to the following seven (7) songs all recorded and released before ARIAN and UNDERWOOD. All of the songs below feature two (2) or three (3) of the keywords of ARIAN and UNDERWOOD.

Arranged chronologically from most recent to oldest:

Underwood	"The Champion" (2018)
Arian	"Invincible" (2017)
Highly Suspect	"Bloodfeather" (2015)
Cassadee Pope	"I Am Invincible" (2015)
Augustana	"Alive" (2014)
Cash Cash	"Michael Jackson" (2012)

Rachelle Ann Go	"Whoa-Man" (2011)
Keshia Chanté	"Shooting Star" (2011)
Jon Bon Jovi	"Unbreakable" (2005)

The same nine (9) songs listed by artist, year and exact key words appear below. Note, that the songs are grouped according to shared keywords in the exact order in which they occur:

Bon Jovi (2005)	unbreakable	unstoppable	invincible
Chante (2011)	unbreakable	invincible	
Cash Cash (2012)	invincible	unbreakable	
Pope (2015)	invincible	unbreakable	
Augustana (2014)	unstoppable	unbreakable	invincible
Rachelle (2014)	unstoppable	unbreakable	invincible
Highly Suspect (2015)	invincible	unbreakable	unstoppable
Arian (2017)	invincible	unbreakable	unstoppable
Underwood (2018)	invincible	unbreakable	unstoppable

Note that six (6) of these songs feature all three (3) keywords:

Bon Jovi (2005)	unbreakable	unstoppable	invincible
Augustana (2014)	unstoppable	unbreakable	invincible
Rachelle (2014)	unstoppable	unbreakable	invincible
Highly Suspect (2015)	invincible	unbreakable	unstoppable
Arian (2017)	invincible	unbreakable	unstoppable
Underwood (2018)	invincible	unbreakable	unstoppable

As noted above, "invincible, unbreakable, unstoppable" are in "Bloodfeather" by Highly Suspect (2015) before ARIAN (2017) and UNDERWOOD (2018).

MELODY

There is no protectable melodic expression between ARIAN and UNDERWOOD. The numbers representing the scale degrees are shown below. The groups of four (or more) numbers each represent one word. The opening melodies of each chorus appear below:

	invincible	unbreakable	unstoppable	
ARIAN	2-2-1-1	2-2-1-1	3-3-2-2	2-2-1-1-2-3
UNDERWOOD	b3-2-1-1	b3-2-1-1	b3-2-1-1	b3-2-1-1

Note that these melodies are different.

COMPARISON of ARIAN, UNDERWOOD and BON JOVI

As an aside that can help illustrate an important different between UNDERWOOD and ARIAN, the melodies or ARIAN, UNDERWOOD and Bon Jovi's 2005 recording, "Unbreakable" (BON JOVI) appear below:

ARIAN	2-2-1-1	2-2-1-1	3-3-2-2	2-2-1-1-2-3
UNDERWOOD	**b3-2-1-1**	**b3-2-1-1**	**b3-2-1-1**	b3-2-1-1
BON JOVI	**b3-2-1-1**	**b3-2-1-1**	**b3-2-1-1**	1-1-2-2-1-2-1-b3

As is noticed above, BON JOVI and UNDERWOOD are nearly identical with respect to chorus melody.

CONCLUSION

Based upon the aforesaid, it is my opinion that ARIAN and UNDERWOOD are not substantially similar.

A musical comparison between the two works reveal no substantive similarities but instead significant differences. Analysis shows that there are no copyright-significant points of similarity - melodic, harmonic, lyric or structural - between ARIAN and UNDERWOOD. The only elements found similar between ARIAN and UNDERWOOD are commonplace and not subject to copyright protection.