A. INTRODUCTION

1. The Claimant, World Athletics ('WA'), formerly the International Association of Athletics Federations ('IAAF'), is the International Federation governing the sport of Athletics worldwide. WA was represented in these proceedings by the Athletics Integrity Unit
2. The Respondent, Daniel Kinyua Wanjiru (‘the Athlete’) is a 28-year-old international athlete and a long-distance runner from Kenya. At all material times, the Athlete was a member of Athletics Kenya, the WA National Federation in Kenya.

3. By Notice of Charge dated 10 April 2020, the Athlete was charged by the AIU with an Anti-Doping Rule Violation (‘ADRV’) under the ADR in connection with abnormalities in the haematological module of his Athlete Biological Passport (‘ABP’). The Athlete denied using any prohibited substances or methods that could have caused the abnormalities detected in his ABP and requested that the matter be determined by way of hearing before the Disciplinary Tribunal.

4. The Disciplinary Tribunal (‘Tribunal’) was convened pursuant to Rule 8.5 ADR. The hearing of this matter took place by Zoom video conference call on 25 September 2020. At the conclusion of the said hearing, the Tribunal reserved its decision. This document constitutes its reasoned Decision, in accordance with Rule 8.9.2 ADR. If this decision does not explicitly refer to a particular point, document or submission, it should not be inferred that it has overlooked or ignored it; the Tribunal considered the entirety of the materials put before it.

B. FACTUAL BACKGROUND

(1) Athlete Biological Passport

5. The Tribunal adopts the AIU’s summary of the process which is not controversial.

6. There are three widely known substances or methods used for blood doping, namely:
   a. Administering recombinant human erythropoietin (‘rEPO’) (administered by injection to trigger erythropoiesis, the stimulation of red blood cells);
b. Synthetic oxygen carriers (i.e., infusing blood substitutes such as a haemoglobin-based oxygen carrier (‘HBOC’) or perfluorocarbons (‘PFC’) to increase haemoglobin (‘HGB’) well above normal levels; and

c. Blood transfusions (i.e., infusing a matching donor’s or the athlete’s own (previously extracted) red blood cells to increase the haemoglobin well above normal).


8. The World Anti-Doping Agency (‘WADA’) developed the concept of the ABP, which WADA introduced to its blood testing programme in 2009. The ABP comprises an electronic record that compiles and collates a specific athlete’s test results and other data over time. It is unique to that particular athlete. The haematological module of the ABP records the values in an athlete’s blood samples of haematological parameters that are known to be sensitive to changes in red blood cell production.

9. The values collected and recorded include haemoglobin concentration (‘HB’) and percentage of immature red blood cells (reticulocytes [‘RET%’]). The ratio of the HB and the RET% values are also used to calculate a further value, known as the OFF-score, which is sensitive to changes in erythropoiesis.

10. The marker values from the blood samples collected in the ABP programme are fed into a statistical model, known as the Adaptive Model. The Adaptive Model uses an algorithm that takes into account both (i) variability of such values within the population generally (i.e., blood values reported in a large population of non-doped athletes) and (ii) factors affecting the variability of the athlete’s individual values (including, gender, ethnic origin, age, type of sport, and instrument related technology).

11. The selected biological markers are monitored over a period of time and a longitudinal profile is created that establishes an athlete’s upper and lower limits within which the
athlete’s values would be expected to fall, assuming normal physiological conditions (i.e., the athlete is healthy and has not been doping). The upper and lower limits have been calculated, as per the WADA ABP Operating Guidelines (‘the Guidelines’) with a “specificity” of 99%\(^1\). The Adaptive Model also calculates the probability of abnormality of the sequence of values in the ABP profile. Thereby the athlete becomes his/her own point of reference and each time a blood sample is recorded, the Adaptive Model calculates where the reported HGB, RET% and OFF-score values fall within the athlete’s expected distribution. After each new test, a new range of expected results for the athlete is determined.

12. WA implements the ABP in accordance with the 2019 IAAF Anti-Doping Regulations (‘the 2019 IAAF Regulations’). The procedure is designed to afford the athlete due process in establishing whether a violation has or may have been committed. In essence, the procedure consists of four steps, which were followed in this case, consisting of:

a. First, an assessment by the Adaptive Model to determine whether the athlete’s blood profile is normal or abnormal;

b. Second, if it is abnormal, an analysis of the athlete’s ABP, together with other relevant information (e.g., whereabouts information and competition schedule) by three scientific experts who do not know the athlete’s identity;

c. Third, the athlete is given an opportunity to provide an explanation and challenge the experts’ conclusions if the experts find indications of prohibited doping; and

d. Finally, and if appropriate, disciplinary proceedings against the athlete if the expert panel, upon consideration of the record (including the athlete’s submissions) unanimously confirms its position that it is likely that the athlete had used a Prohibited Substance or Prohibited Method and it is highly unlikely that the profile is the result of any other cause.

\(^1\) Which entails a statistical risk of a false positive of 1 in 10,000.
(2) The Athlete

13. From 20 April 2017 to 25 April 2019 World Athletics collected 16 ABP blood samples from the Athlete.

14. Blood sample 14 was taken from the Athlete on 9 March 2019, the day after he got down from altitude in Kenya and flew to London. He competed in the London Half Marathon on 10 March 2019 (‘the London Big Half’) and returned to altitude in Kenya on 11 March 2019. Sample 15 was taken from him in Kenya on 13 March 2019.

15. A summary table of the Athlete’s ABP was prepared showing the Athlete’s HGB, RET% and OFF-scores for the thirteen ‘valid’ samples:

<table>
<thead>
<tr>
<th>No.</th>
<th>Date of Sample</th>
<th>HGB (g/dL)</th>
<th>RET%</th>
<th>OFF-score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>20 April 2017</td>
<td>16.7</td>
<td>1.78</td>
<td>87.00</td>
</tr>
<tr>
<td>2.</td>
<td>15 June 2017</td>
<td>16.5</td>
<td>1.37</td>
<td>94.80</td>
</tr>
<tr>
<td>5.</td>
<td>10 February 2018</td>
<td>17.0</td>
<td>1.61</td>
<td>93.90</td>
</tr>
<tr>
<td>6.</td>
<td>11 March 2018</td>
<td>16.2</td>
<td>1.51</td>
<td>88.30</td>
</tr>
<tr>
<td>7.</td>
<td>4 April 2018</td>
<td>17.1</td>
<td>2.01</td>
<td>85.94</td>
</tr>
<tr>
<td>8.</td>
<td>19 April 2018</td>
<td>16.4</td>
<td>1.63</td>
<td>87.40</td>
</tr>
<tr>
<td>9.</td>
<td>8 August 2018</td>
<td>15.6</td>
<td>1.16</td>
<td>91.38</td>
</tr>
<tr>
<td>10.</td>
<td>6 September 2018</td>
<td>16.0</td>
<td>1.30</td>
<td>91.59</td>
</tr>
<tr>
<td>11.</td>
<td>6 October 2018</td>
<td>16.8</td>
<td>1.13</td>
<td>104.20</td>
</tr>
<tr>
<td>13.</td>
<td>12 February 2019</td>
<td>17.4</td>
<td>1.09</td>
<td>111.40</td>
</tr>
<tr>
<td>14.</td>
<td>9 March 2019</td>
<td>19.4</td>
<td>1.05</td>
<td>132.50</td>
</tr>
<tr>
<td>15.</td>
<td>13 March 2019</td>
<td>16.8</td>
<td>0.85</td>
<td>112.70</td>
</tr>
<tr>
<td>16.</td>
<td>25 April 2019</td>
<td>16.7</td>
<td>1.48</td>
<td>94.00</td>
</tr>
</tbody>
</table>

\[\text{i.e. comply with the appropriate WADA and ISTI standards.}\]
16. The Athlete’s ABP was submitted to a panel of three suitably qualified and experienced experts for an anonymous review: Dr Laura Garvican Lewis, Professor Giuseppe d’Onofrio and Dr Paulo Paixão (the ‘Expert Panel’). In its First Report dated 13 September 2019 (‘the First Report’), the Expert Panel noted the abnormalities in sample 14\(^3\) and opined:

“Besides violation of the ABP individual HB and OFF score limit, the HB value recorded in sample 14 (19.4 g/L) is extraordinarily high for a healthy young man. [...] In this context, the extreme, abrupt and transitory increase of HB from 17.4 in sample 13 to 19.4 g/dL in sample 14 does not have any physiological explanation. [...] Even in this case, a change of this inordinate rapidity and amplitude (-2.6 g/dL), and in such direction has neither any physiological nor any pathological explanation, in the absence of a severe and certified medical condition associated with loss of a large amount of blood.”\(^4\)

17. The Expert Panel rejected the possibility that the Athlete’s travel from altitude to sea level could explain the variation in his haematological profile:

“Any possible effect of travel from altitude to sea level and differences of oxygen availability have to be excluded, owing to the extreme breadth of the increase and also because direct experimental evidence has shown that, after arrival to sea level from their altitude training locations, Kenyan athletes display a fall of HB, as a consequence of increased volume of the liquid component of blood (plasma expansion), which causes hemodilution [4]. The change of HB in sample 14, instead, goes toward the opposite direction. In addition, it is important to underline how samples 2 and 8 had been collected in identical environmental conditions, that is two or three days after arrival to sea level before a race, and do not show any similar change.”\(^5\)

18. The First Expert Panel Joint Opinion concluded:

“In conclusion, the increase of HB from sample 13 to sample 14, and its sudden decrease from sample 14 to sample 15 cannot be explained by any other cause than blood manipulation…”\(^6\)

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\(^3\) Collected in London on 9 March 2019.

\(^4\) P515 – all pagination references are to the hearing bundle unless indicated otherwise.

\(^5\) Ibid.

\(^6\) P516.
and

“We therefore conclude, considering the information within the Passport BP93FJ32000A122E03 and in the absence of an appropriate explanation, that it is highly likely that a prohibited substance or prohibited method has been used and that it is unlikely that the passport is the result of any other cause.”

19. By letter dated 29 November 2019, the AIU informed the Athlete of the abnormalities detected in his ABP profile. He was informed that the AIU was considering bringing charges against him and he was invited to provide explanations for the abnormalities.

20. By email sent to the AIU on 9 December 2019 his representative, Mr van Dijk confirmed that the Athlete accepted to refrain from participating in any competition and so thereby accepted a voluntary Provisional Suspension.

21. By letter dated 21 February 2020, the Athlete provided his explanation for the abnormalities in his ABP. He also provided an expert report from a Dr Roger Palfreeman. The Athlete asserted that there was no direct evidence of doping and the "single piece of circumstantial evidence" does not provide sufficient evidence. He also challenged the First Expert Panel Joint Opinion, arguing that together with Dr Palfreeman’s report, it is “unlikely that [the Athlete] used a prohibited substance or a prohibited method, and that it is likely that the abnormal values are due to another cause”.

22. The Expert Panel considered the above, together with Dr Palfreeman’s report. In consequence it prepared the Second Expert Report dated 18 March 2020. Therein the Expert Panel dismissed the Athlete’s explanations and the opinion of Dr Palfreeman. It concluded:

“In summary, the arguments forwarded by the Athlete cannot explain the hematological abnormalities in the ABP Passport. In contrast, it is very likely to observe the features of

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7 P517.
sample 14 and 15, assuming blood manipulation, notably an artificial increase in red blood cell mass caused blood transfusion…

We therefore confirm our previous opinion that it is highly unlikely that this profile is the result of a normal physiological or pathological condition, and it is highly likely that it was caused by the use of prohibited methods, with or without the use of prohibited substances.”

(3) The charge

23. Pursuant to a Notice of Charge dated 10 April 2020 (‘the Charge’), the Athlete was charged with an ADRV contrary to Rule 2.2 ADR:

“Use of a Prohibited Substance or a Prohibited Method pursuant to Article 2.2 ADR on the basis of abnormal variations in your haematological profile between 20 April 2017 and 25 April 2019.”

24. The particulars of the Charge were set out in the AIU’s Brief9. It relates to abnormalities in the haematological module of the Athlete’s ABP from sample 14 which it is alleged indicates blood manipulation:

a. data beyond the individual reference ranges for the Athlete at 99.99% specificity for sample 14 (collected on 9 March 2019), which shows an HB value of 19.4g/dL and an OFF-score of 132.5, both markedly above the upper intraindividual limit calculated at 18.0g/dL and 117.4 respectively; and

b. the significant increase in HB from sample 13 (17.4g/dL) to sample 14 (19.4g/dL) and its sudden decrease from sample 14 to sample 15 (16.8g/dL), which cannot be explained by any other cause than blood manipulation10.

(4) The Athlete’s Response

25. The Athlete provided his response by way of letter dated 8 May 2020 (‘the Response’). Therein he maintained his denial of the ADRV and requested a hearing before the Disciplinary Tribunal. The Response pleaded details relied upon by the Athlete in support of his denial.

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8 P533.
9 Dated 30 June 2020
10 Ibid, § 4, p. 3
26. In summary the Athlete argued:

a. that he did not have the medical or other means or motive to dope in any of the ways alleged, or at all.

b. that the Expert Panel had erred in:
   i. making incorrect assumptions about his travel prior to sample 14,
   ii. its use of scientific studies;
   iii. failing to consider the HBs levels in sample 3, sample 4 and sample 12;
   iv. failing to consider properly WADA-funded studies concerning plasma volume; and
   v. rejecting a different and plausible alternative to doping.

(5) Expert Panel’s consideration of Athlete’s case

27. The Expert Panel responded to the Athlete’s case by way of a further joint expert opinion dated 18 June 2020 (‘Third Expert Panel Joint Opinion’). Therein the Expert Panel addressed with particularity each of the Athlete’s contentions. The Executive Summary states:\[11:

a. The HGB value in sample 14 is an extremely rare finding. Dr Palfreeman does not explain that.

b. The body of scientific literature shows that a decrease in HB is expected after descent to sea level due to plasma expansion. Such an effect was noted in samples 7 and 8 both (like sample 14) obtained one day after his arrival at sea level. Only the extremely abnormal sample 14, also collected one day after the Athlete’s arrival at sea level, exhibits an increase in HB.

c. Further, samples 3, 4 and 12 were not considered in line with WADA guidelines. But when they are included in the Athlete’s ABP, the Expert Panel confirmed that the Athlete’s HB values for sample 14 remain abnormal for HB and OFF-score with a specificity of 99.99%. Moreover, sample 4 itself records a highly suspicious value for OFF-score (collected on 18 January 2018, four days after the Athlete’s participation in the Houston Half Marathon).

\[11\] P554
d. The RET% value of sample 15 is the lowest in the ABP profile and cannot be explained by a recent, brief exposure to sea level.

C. HEARING BEFORE THE DISCIPLINARY TRIBUNAL

28. On 26 May 2020 pursuant to Rule 8.7 ADR the Panel Chair conducted a Preliminary Meeting by telephone conference call. He made the appropriate directions, some of which were varied subsequently on application.

29. The hearing before the Tribunal on 25 September 2020 was conducted in accordance with Rule 8.8. ADR and by Zoom video conference call. It was attended as follows:

Sport Resolutions (Secretariat to the Disciplinary Tribunal):
- Roxana Weich - Senior Case Manager

World Athletics:
- Ross Wenzel – Counsel for World Athletics
- Raphaël Roux - AIU Out-of-Competition Testing manager
- Laura Gallo – Coordinator – Results Management

Expert Witnesses for WA:
- Dr Laura Garvican Lewis
- Professor Giuseppe d’Onofrio
- Dr Paulo Paixão

For the Athlete:
- Daniel Kinyua Wanjiru
- Michiel van Dijk – Partner, CMS Derks Star Busmann N.V
- Amajanti van de Beek – CMS Derks Star Busmann N.V

Expert Witness for the Athlete:
- Paul Scott
Observers:

- Hannah van de Veen and Marieke van de Veen – The Athlete’s Management Team
- Adam Taylor – Associate, Kellerhals Carrard

30. The hearing followed the timetable essentially agreed between the parties, save for modest amendments by the Tribunal. The hearing was recorded. The Tribunal heard opening and closing submissions and evidence from:
   a. The Athlete; and
   b. each of the three members of the Expert Panel (concurrently) and thereafter Mr Paul Scott. Thereafter the four experts debated matters in a session moderated by the Panel Chair.\(^{12}\)

31. Although required by WA to attend, Dr Palfreeman did not do so. The Tribunal was informed that he was not fit to attend and received (on 25 September 2020) this email from him via Mr van Dijk when it asked for documentary ‘proof’:

“I have previously withdrawn from the anti-doping case for medical reasons. I can confirm that I am currently not working in any capacity. I am not able to attend the hearing.”

32. In advance of the hearing the Tribunal declined the Athlete’s request\(^{13}\) to instruct its own so-called independent expert\(^{14}\). The reasons for that decision, and addressing the bases for the Athlete’s request, are as follows:
   a. There was no justification for a departure from the normal procedure whereby the parties present the evidence they wish to place before the adjudicating body. In this case the Tribunal had an abundance of relevant expert evidence upon which to determine the germane issues and reach an informed decision accordingly.
   b. The Tribunal rejected the contention that the Expert Panel or any member of it is or was partial or lacked the necessary or appropriate objectivity. There is no

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\(^{12}\) A so-called expert ‘hot-tub’.

\(^{13}\) See Answer Brief § 6 and Answer to Reply § 2.3.

\(^{14}\) Which the AIU opposed.
evidence to support that suggestion, any more than there is to allege that Paul Scott was biased.

c. Each member of the Tribunal is experienced and well able to consider expert evidence of the kind presented in this case and resolve conflicts between expert witnesses.

33. What follows is a synopsis of the parties’ respective cases. It does not include every submission advanced in their respective pleadings and other documents, though all of that material, and the evidence, have been considered by Tribunal in reaching this Decision.

(1) World Athletics’ case

34. WA’s case remained as summarised above and articulated in its Brief and Reply Brief\(^\text{15}\). Based on the reports and evidence of the Expert Panel it submitted that the only reasonable explanation for the abnormalities in sample 14, in particular, to the extreme abnormality of HB was the use by the Athlete of a Prohibited Substance or Prohibited Method. It submitted:

a. Sample 14 is an extremely abnormal result from a quantitative perspective (exceeding the 99.99% specificity level).

b. It represented an extremely high HGB and OFF-score values on the eve of the Big Half Marathon in London.

c. That already extreme abnormality is all the more abnormal in circumstances where the scientific literature as well as the Athlete’s own prior samples indicate that HB should have decreased on the Athlete’s descent from altitude upon his arrival in London.

d. The Expert Panel’s position remained that the explanations advanced by the Athlete (and his experts) failed to explain the haematological abnormalities in the Athlete’s ABP.

\(^\text{15}\) Dated 31 August 2020, pp19-25.
35. The Expert Panel considered further the Athlete’s case and his expert evidence in its Fourth Report dated 28 August 2020. The Expert Panel:

a. Maintained that a decrease in HB is expected following descent to sea level due to plasma volume expansion. This response is clearly documented and demonstrated in the Athlete’s own samples (see samples 7 and 8).

b. Disputed Dr Palfreeman’s and Mr Scott’s reliance on an excerpt from a study by Ashenden et al. (2003) in attempting to disprove the “accepted scientific phenomenon” of a reduction in HB due to plasma volume expansion on descent to sea level.

c. Challenged the Athlete’s reliance on the USADA-funded (Miller) study to explain the abnormal increase in HB in sample 14 of the profile. That study was based on athletes competing in ironman competition, a unique and highly strenuous activity.

36. Consequently, it submitted the Tribunal could be comfortably satisfied that the Athlete had committed an ADRV contrary to Rule 2.2 ADR by blood manipulation. As for the Prohibited Method, in the First Report the Expert Panel favoured a blood transfusion, “likely by reinfusing before leaving altitude at least two or more bags of previously stored blood cells” on 8 March 2019. That would have been followed by withdrawal of blood either shortly after the race or after return to Kenya on 11 or 12 March 2019. The Expert Panel noted that reinfusion and withdrawal of blood is usually associated with reticulocyte changes. However, reticulocyte changes take several days to become apparent and if the reinfusion and withdrawal were carried out as quickly as envisaged in this case and so close to sample collection, there would be no time for a reticulocyte change. Even so, sample 15 (13 March 2019) still showed the lowest 40% reticulocytes of the entire profile, as a likely consequence of the enlarged red blood cell mass due to the blood reinfusion a few days before.

37. An alternative method was a course of Erythropoiesis Stimulating Agent (‘ESA’) injections a few weeks before the London Big Half. The Expert Panel thought that it is less likely than the reinfusion and withdrawal method because of the outstanding
rapidity of HB variation within the space of a few days\(^\text{18}\). In its submissions WA also raised the possibility of rEPO injections as well as or instead of the other options.

(2) The Athlete’s case

38. The Athlete’s case was set out in, \textit{inter alia}:
   a. The said letters dated 21 February and 8 May 2020;
   b. Athlete’s Answer Brief dated 17 August 2020 (‘the Answer Brief’\(^\text{19}\); and
   c. Athlete’s Answer to WA Reply Brief dated 14 September 2020 (‘Answer to Reply’\(^\text{20}\).

39. The Athlete relied on the following expert evidence:
   a. Dr Roger Palfreeman’s
      i. first report dated February 2020 (‘Dr Palfreeman’s First Report’\(^\text{21}\); and
      ii. second report dated May 2020 (‘Dr Palfreeman’s Second Report’\(^\text{22}\).
   b. A joint report from Dr Palfreeman and Mr Scott dated 15 August 2020 (‘Joint Report’\(^\text{23}\).
   c. Report of Mr Scott dated 14 September 2020 (‘Mr Scott’s Report’\(^\text{24}\).

40. The Athlete was born on 26 May 1992 in Kenya. He has been an elite international long-distance runner for many years. He won the Amsterdam Marathon in 2016 and the London Marathon in 2017. He denied the ADRV in his evidence to the Tribunal. He submitted that he was an innocent athlete who has never been involved in any form of blood or other doping.

41. In Dr Palfreeman’s First Report, he postulated an alternative explanation (to doping) namely a reduction in plasma volume leading to an increase in HB concentration caused

\(^{18}\text{Ibid.}\)
\(^{19}\text{P706.}\)
\(^{20}\text{P715.}\)
\(^{21}\text{P721.}\)
\(^{22}\text{P827.}\)
\(^{23}\text{P842.}\)
\(^{24}\text{P888 and 914.}\)
by a reduction in the Athlete’s physical activity or training, so-called tapering\textsuperscript{25}. It is particularly pronounced in endurance athletes. He opined that there were two factors which had the potential to significantly influence plasma values in respect of sample 14:

a. Increased training load in the month prior to the road followed by an extended taper. Due to a knee injury and related recovery, his training was limited until January 2019 and so he overtrained in February before easing off.

b. Sample 14 was the only sample taken the day before a race, at the end of a period of greatly reduced physical activity.

42. Dr Palfreeman also questioned the validity of sample 15 and so the value of the RET% at 0.85 as an indicator of blood transfusion days before. In any event, he argued, that value is within the limitations of the Adaptive Model\textsuperscript{26}.

43. He further argued that the blood transfusion was implausible, based on the absence of opportunity or resources to effect it. He pointed to what he said was an absence of any evidence of blood withdrawal and there being no motive. He also pointed to his times for the 2018 and 2019 Big Half races, as supporting the contention that there was no improved performance (and so no doping).

44. In Dr Palfreeman’s Second Report\textsuperscript{27} he criticised, \textit{inter alia}, what he called “significant errors” in the Expert Panel’s interpretation of scientific papers; its failure to consider samples 3, 4 and 12; its failure to address the defence explanation for suppression of RET% in sample 15; incorrect assumptions he said it had made regarding plasma volume changes relative to workload and the Athlete’s travel before sample 14 and his circumstances; and relied upon evidence from an emerging WADA study concerning plasma volume.

45. As well as adopting and expanding upon such points, the Joint Report opined that the HB value, whilst high, was not entirely unknown in athletes. There was, they opined, potential for plasma volume changes to produce false HB positives in isolated values.

\textsuperscript{25} P728-733.
\textsuperscript{26} P733.
\textsuperscript{27} P827 et seq.
For reasons they explained, they argued that the Expert Panel had erred in its methodology.

46. The Scott Report advances the same alternative to doping, namely plasma volume changes due to tapering and asserts that sample 14 is unlike the other samples\(^\text{28}\). It also asserts that factually the probability of doping scenario is zero\(^\text{29}\) and that the Expert Panel misunderstood the importance of *Prommer* and wrongly maintained its reliance on mean values and trends\(^\text{30}\). Mr Scott also opined that the Expert Panel had misunderstood the importance of the USADA ironman and WADA studies\(^\text{31}\).

C. JURISDICTION

47. Rule 1.2 ADR states:

“In accordance with Article 16.1 of the IAAF Constitution, the IAAF has established an Athletics Integrity Unit (“Integrity Unit”) with effect from 3 April 2017 whose role is to protect the Integrity of Athletics, including fulfilling the IAAF’s obligations as a Signatory to the Code. The IAAF has delegated implementation of these Anti-Doping Rules to the Integrity Unit, including, but not limited to the following activities in respect of International-Level Athletes and Athlete Support Personnel: Education, Testing, Investigations, Results Management, Hearings, Sanction and Appeals. The references in these Anti-Doping Rules to the IAAF shall, where applicable, be references to the Integrity Unit (or to the relevant person, body or functional area within the Unit).”

48. Rule 1.6 ADR states:

“These Anti-Doping Rules also apply to the following Athletes, Athlete Support Personnel and other Persons, each of whom is deemed, as a condition of their membership, accreditation and/or participation in the sport, to have agreed to be bound by these Anti-Doping Rules, and to have submitted to the authority of the Integrity Unit to enforce these Anti-Doping Rules:

\(^\text{28}\) §7, 27-41
\(^\text{29}\) §6, 10-26.
\(^\text{30}\) §8, 42-58
\(^\text{31}\) §9, 59-67
a. all Athletes, Athlete Support Personnel and other Persons who are members of a Member Federation or of any member or affiliate organisation of a Member Federation (including any clubs, teams, associations or leagues);
b. all Athletes, Athlete Support Personnel and other Persons participating in such capacity in Competitions and other activities organized, convened, authorized or recognized by (i) World Athletics (ii) any Member Federation or any member or affiliate organization of any Member Federation (including any clubs, teams, associations or leagues) or (iii) any Area Association, wherever held;
c. all Athlete Support Personnel and other Persons working with, treating or assisting an Athlete participating in their sporting capacity; and
d. any other Athlete, Athlete Support Person or other Person who, by virtue of an accreditation, licence or other contractual arrangement, or otherwise, is subject to the jurisdiction of World Athletics, of any Member Federation (or any member or affiliate organization of any Member Federation, including any clubs, teams, associations or leagues) or of any Area Association, for purposes of anti-doping.”

49. The ADR therefore applies to all athletes who are members of a National Federation and to all athletes participating in competitions organised, convened, authorised or recognised by the World Athletics.

50. At all material times, the Athlete was a member of Athletics Kenya, the World Athletics National Federation in Kenya. In addition, in 2019 the Athlete competed in the 2019 London Marathon on 28 April 2019, which is a competition recognised by World Athletics. He is an international athlete and is subject to the jurisdiction of the ADR.

51. Rule 5.4.1 ADR also provides that Testing conducted under those rules shall be subject to the provisions of the Anti-Doping Regulations in force at the time of Testing. The Anti-Doping Regulations in force at the relevant time were the 2019 IAAF Regulations.

52. The 2019 IAAF Regulations implement and give effect to the specific provisions of the WADA International Standard for Testing and Investigations (‘ISTI’) in accordance with World Athletics’ obligations under Rule 23.3 WADA Code.
53. Rule 7.2 ADR confers jurisdiction for results management on the AIU in certain circumstances, including those of this case.

54. By Rules 1.4, 1.8, 8.1(a), 8.1(c)(i) and 8.1(c)(ii) ADR the Tribunal has jurisdiction to hear and determine this matter. The Athlete accepted he was subject to the ADR and the jurisdiction of the Tribunal.\(^{32}\)

D. ANTI-DOPING RULE VIOLATION

(1) Applicable law

55. Article 2 ADR specifies the circumstances and conduct that constitute ADRVVs. This includes Rule 2.2, which specifies:

“2.2 Use or Attempted Use by an Athlete of a Prohibited Substance or a Prohibited Method

2.2.1 It is each Athlete’s personal duty to ensure that no Prohibited Substance enters his body. Athletes are responsible for any Prohibited Substance or its Metabolites or Markers found to be present in their Samples. Accordingly, it is not necessary that intent, fault, negligence, or knowing use on the Athlete’s part be demonstrated in order to establish an Anti-Doping Rule Violation for Use of a Prohibited Substance or a Prohibited Method.

2.2.2 The success or failure of the Use or Attempted Use of a Prohibited Substance or Prohibited Method is not material. It is sufficient that the Prohibited Substance or Prohibited Method was Used or Attempted to be Used for an Anti-Doping Rule Violation to be committed.”

56. 3.1 ADR provides that WA shall have the burden of establishing that an ADRV has occurred to the comfortable satisfaction of the Tribunal:

“3.1 The IAAF or other Anti-Doping Organisation shall have the burden of establishing that an Anti-Doping Rule Violation has been committed. The standard of proof shall be whether the IAAF

\(^{32}\) Answer Brief, §5.1-5.2.
has established the commission of the alleged Anti-Doping Rule Violation to the comfortable satisfaction of the hearing panel, bearing in mind the seriousness of the allegation that is made. This standard of proof in all cases is greater than a mere balance of probability but less than proof beyond a reasonable doubt…”

57. Rule 3.2 of the ADR provides that ‘facts related to Anti-Doping Rule Violations may be established by any reliable means, including admissions …’. The Comment to WADA Code 2015, Rule 3.2 reads that a “reliable mean” includes “conclusions drawn from the profile of a series of the Athlete’s blood or urine Samples, such as data from the Athlete Biological Passport”.

58. It is not incumbent upon WA to establish by which of the two possible means (Prohibited Substance or Prohibited Method) the Athlete committed the ADRV. It need prove only that he did it by one or other or (indeed) both.

(2) Reliability of the ABP

59. The ABP has long been accepted and relied upon in anti-doping proceedings. It is settled by the Court of Arbitration for Sport (‘CAS’) and other reputable anti-doping jurisprudence that the ABP model is a reliable means of establishing blood doping by the use of a Prohibited Substance or Prohibited Method\(^{33}\). The Tribunal is comfortably satisfied that it is a reliable means for establishing an ADRV.

(3) Application of the ABP in anti-doping proceedings

60. The case against the Athlete rests upon the ABP and its interpretation.

61. Abnormal values do not \textit{de facto} prove an ADRV. They are necessary but not, of themselves, sufficient evidence for an ADRV. There is a distinction between what has been called the ‘quantitative’ and ‘qualitative’ assessment of such evidence\(^{34}\). The

\(^{33}\) For example, see IAAF v Cyrus Rutto SR/Adhocspot/102/2019 (and footnote 80) and World Athletics v Hassan Chani SR/078/2020.

\(^{34}\) See IAAF v Sarah Chepchirchir SR/Adhocspot/26/2019 §117.
former describes the abnormal values or levels in the ABP; the latter refers to the reasons advanced to explain those values or levels. The Tribunal agrees with these observations of the Arbitrator in *IAAF v ARAF & Kristina Ugarova*\(^{35}\):

“The mere fact that an athlete cannot provide a credible explanation for the deviations in his or her ABP it cannot automatically be deduced that an anti-doping rule violation has been committed. Rather, the deviations in the ABP are to be interpreted by experts called to put into the balance various hypothesis that could explain the abnormality in the profile values, ie a distinction made between a ‘quantitative’ and a ‘qualitative’ assessment of the evidence.”

(4) **Expert evidence**

62. In assessing the merits of the expert evidence, the Tribunal had proper regard to the qualifications and expertise of those from whom it heard. Dr Palfreeman is a doctor, with a post-qualification diploma in sports and exercise medicine. He is an experienced practitioner and was by way of example, the team doctor for the GB Cycling, Sky Cycling and Mitchelton-Scott cycling. He was said to be unfit to attend and so was not subject to questioning. The Tribunal gave his report some weight but because he was not in attendance that weight was necessarily limited and not granted as much as the experts who attended.

63. Mr Scott is not a doctor and has no medical qualifications. He has a degree in chemistry and biology and practised as a lawyer. By contrast, the Expert Panel members are specialists in this field. Dr Laura Garvican-Lewis is an expert sports scientist, with particular expertise on the effect of altitude exposure and (de) training on haematological parameters. Professor Giuseppe d’Onofrio is an expert haematologist. Dr Paulo Paixão is a clinician.

\(^{35}\) §94; with which the Arbitrator in *IAAF v Sarah Chepchirchir* agreed (see §120-121).
(a) Values in sample 14

64. The starting point is that both WA and the Athlete accept sample 14 was abnormal. It was not suggested that those values were wrong or inaccurate. In its Fourth Report, the Expert Panel described the HB concentration of 19.4 g/dL as an “extreme abnormality”. Paul Scott described it in his evidence as “highly abnormal”. The Tribunal is comfortably satisfied that the HB and OFF-score values in sample 14 were abnormal.

65. The central issue is whether, in reliance upon the scientific evidence, WA has made the Tribunal comfortably satisfied that the explanation for the said abnormalities is use by the Athlete of a Prohibited Substance or Prohibited Method. Put another way, what did or may have caused those accepted abnormalities? This requires an analysis of the scientific evidence together with consideration of any alternative explanation for them other than blood manipulation.

(b) Criticisms of the Expert Panel's methodology

66. The various criticisms of the Expert Panel’s approach and methodology do not withstand proper analysis, nor do they undermine its central conclusion.

   a. Sample 15:
      i. Validity of sample 15 -
         1. There has been no unjustified reliance by the Expert Panel on sample 15 in the evaluation of the Athlete’s ABP.
         2. The RET% values in sample 15 do fall slightly outside of the 0.15% repeatability requirements set out in the WADA ABP Operating Guidelines, according to the ISTI. However, L.2.1.6.236 provides that experts may include all results in their review (of the profile), provided that their conclusions may be validly supported when taking into account the effects of the nonconformity.

36 Annex L
3. In the Tribunal’s opinion, the minor nonconformity in sample 15 does not impact their evaluation of the passport to the disadvantage of the Athlete. In fact, it is to be noted the RET% result of the second run (0.65% instead of 0.85%), would have increased the OFF-score in sample 15 further. Therefore, it does not impact upon the Expert Panel’s evaluation of the passport to the disadvantage of the Athlete.

ii. Reliance upon sample 15 -

1. Sample 15 showed a suppressed RET% value, the lowest in the ABP profile. The rEPO system reacts very sensitively to each ascent to altitude and as such this is not a normal physiological response for a return to altitude. Further it does not accord with other samples collected from him shortly after a return to altitude (samples 2 and 6) which do not present low RET%.

2. The Expert Panel did consider and reject the Athlete’s explanation. It also, to the Tribunal’s satisfaction, demonstrated that his reliance on the Pottgiesser (2012) study was erroneous. In that study the post altitude sample in which a %RET was obtained was also observed at sea level. Similarly, in the Prommer study.

b. Samples 3, 4 and 12:

i. The Expert Panel excluded them from initial consideration as they did not accord with WADA guidelines. But to include them does not assist the Athlete for the impact on the individual thresholds is minimal. Further, the OFF-score for sample 4 is an outlier.

ii. The subsequent criticism of the Expert Panel for including sample 4 in its evaluation of the ABP is utterly unjustified. It was only included in the Third Expert Panel Report as an example and at the specific invitation of the Athlete.

c. Comparison with sample 13:

i. The Expert Panel noted the significant increase in the HB level from sample 13 to sample 14 and then rapid decline to the value in sample 15.

ii. Sample 13 was taken on 12 February 2019. It was selected because it represented a time when his training load was substantial. Since it was
said that sample 14 was taken at the end of a period of tapering, it makes sense (to the Tribunal) to compare the results with those of sample 13. There is no substance in the criticism that the Expert Panel choose to do so.

d. The Tribunal is satisfied that the Expert Panel has not erred in its consideration of scientific literature. The Pottgiesser, Prommer, Tour Down Under and USADA Miller studies are considered elsewhere. Its analysis of Damsgaard et al. is lucid and cogent37.

67. It is also important to note that the conclusion by an expert panel that doping is the very likely cause of abnormalities in an ABP is not routine or automatic. Professor d’Onofrio told the Tribunal that it is in about only 20% of cases that such a conclusion is reached. Indeed, on another 20% the expert panel reject the content that there is any abnormality at all.

(c) Alternative explanation

68. It is clear from paragraphs 56-59 and 62 that the Athlete does not have the burden of proving an alternative explanation. The fact he advanced an explanation does not mean he assumed any burden to establish it. However, it is right also that in deciding whether the Tribunal is satisfied that an ADRV has been proved, it is both entitled and required to have regard to any explanation advanced by the Athlete. As Mr van Dijk acknowledged in his Answer Brief conclusions advanced to the Athlete drawn from the ABP data must be “weighed against the Athlete’s explanations for the anomalous value in sample 14.”

69. There is no reasonable alternative explanation to blood manipulation. The one advanced by the Athlete, namely tapering is not sustainable for these reasons.

37 See p556-557.
70. First, the foundation for this explanation must be the Athlete’s own account of his training regime, not what is stated in reports. In his evidence to the Tribunal (when questioned by Mr Wenzel) the Athlete said:

   a. At the start of 2019, he was training to recover from injury. He was preparing for the half marathon. He was running 135-200 miles a week, with only Sunday as a rest day. He did morning and evening sessions.

   b. He said that during the week before his departure for London (at the beginning of March) he had reduced his “intensive training”. He was doing 10k in the morning and 10k in the evening, “jogging”. He said a “long run” in training was running 35-40 k at once. He did not go on a “long run” on 2 March.

71. That represents a tapering of training of some degree but not (in our judgment) of any significance, either by extent or duration. Therefore, the necessary factual foundation for that alternative explanation is not laid.

72. Secondly, the context of the taking of sample 14 undermines the theory. It was taken in London at 07.38a.m. on 9 March 2019 after he had travelled the preceding day from altitude in Kenya. The body of recognised scientific literature demonstrates an increase in plasma volume and so a decrease in HB is expected after descent to sea level. Dr Palfreeman and Mr Scott’s reliance on Prommer does not help the Athlete. It describes haematological changes in Kenyan runners during a period at sea level. While there is individual variation, Figure 2 from paper shows an increase in blood volume upon descent to sea level, with consequential decrease in HB levels.

73. Thirdly, the Athlete’s own sample history corresponds with that scientific theory. Such an effect, namely a decrease in HB was noted in samples 7 and 8, both (like sample 14) obtained very soon after his arrival at sea level from altitude.

74. Fourthly, no such extreme HB values, as those in sample 14, have been demonstrated during a taper in any of the published research cited by the Expert Panel. Indeed, those reports cited by the Expert Panel show that changes in training load including tapering generally induce a mild increase of HB, not the extent of the increase in this case.
75. The Athlete’s reliance on the WADA-funded study conducted at the Tour Down Under (‘TDU’) cycling race in January 2020 and the USADA Miller (‘Miller’) study is misconceived. Dr Garvican-Lewis was the lead researcher on the TDU study and gave evidence about it. The exercise regime of the cyclist is wholly different from that of the Athlete. The physiological load of the cyclists was very different from the Athlete’s endurance training. They were also indigenous sea level athletes and there was no change in altitude.

76. Similarly, the Miller study is not relevant. It concerned measurements taken after an ironman competition (over 7 hours of intense exercise). It is noted that in that study HB initially decreased at days 1-3 post competition but then recovered to pre-race levels or increased. The Athlete’s regime did not include nor was his travel preceded by such exhaustive exercise that a super-compensatory HB can be excluded as a reasonably possible occurrence.

(5) Other arguments in support of a non-doping explanation

77. Opportunity and/or resources:
   a. Insofar as it was part of the opinions of Dr Palfreeman and Mr Scott, other than the mechanics involved in blood transfusion, whether the Athlete has the opportunity or resources is not a matter for expert evidence.
   b. He is an elite international runner, represented by Volare Sports agency, which describes itself as a leading sports agency for elite long distance athletes. On the basis of the materials before the tribunal, his income is not insignificant. He has financial means. In its closing submission Mr van Dijk said it had cost the Athlete to defend the case. Moreover, he does have access to some medical facilities in Kenya.
   c. In any event, where (as here) there is no direct evidence of blood manipulation there is bound to be an element of speculation as to when and how the ADRV was committed. There is nothing in the material before the Tribunal which renders doping impossible by virtue of the Athlete having neither the resources nor the opportunity. Further his training and living circumstances, as revealed in the
material, are not such as to undermine the formidable scientific evidence that blood manipulation is the irresistible explanation for the sample 14 abnormalities.

78. Motive:
   a. Insofar as it was part of the opinions of Dr Palfreeman and Mr Scott, this is not a matter for expert evidence. Establishing a motive is not a prerequisite for proving an ADRV. Doping may be committed for clear motive or for one which is opaque to the outsider. Absent an admission, it is utterly speculative to suppose why an athlete might dope and does not help this Tribunal resolve the central issue. As a result, the lack of motive cannot be a successful (or effective) defence.

79. Performance:
   a. The comparison between his results in the 2018 and 2019 Big Half races as a method of supporting the contention that he did not dope is specious. It does not disprove the use of a performance enhancing Prohibited Substance or Method.

80. ‘Clean’ doping record:
   a. This does not assist the Athlete. It does not preclude any form of doping, still less blood manipulation.

(6) Conclusion

81. It follows that the Tribunal accepts the Expert Panel opinion:\[38\]:

“… that a level of hemoglobin concentration of 19.4 g/dL in an athlete who is usually moving between 15.0 g/dL and 17.0 g/dL is an extreme anomaly, which has nothing to do with hemoconcentration, tapering, travels, hydration, or any other confounding factor. That anomaly is far beyond any physiological possible adjustment and by itself carries a very high risk of thrombotic complications, coronary thrombosis and sudden death.

In summary, the additional arguments of the Defence Expert cannot explain the haematological abnormalities in the ABP Passport. We therefore confirm our previous opinion that it is highly

\[38\] P562
unlikely that this profile is the result of a normal physiological or pathological condition, and it is highly likely that it was caused by the use of prohibited methods, with or without the use of prohibited substances."

82. For all of those reasons, the Tribunal is comfortably satisfied that WA has discharged its burden and established that the Athlete committed an ADRV contrary to Rule 2.2 ADR which caused the abnormalities in the Athlete’s ABP.

83. It is necessary to examine the applicable period of Ineligibility.

F. CONSEQUENCES OF THE ANTI-DOPING RULE VIOLATION

(1) Period of Ineligibility

84. Rule 10.2 ADR states:

“Ineligibility for Presence, Use or Attempted Use, or Possession of a Prohibited Substance or Prohibited Method

The period of Ineligibility imposed for an Anti-Doping Rule Violation under Rule 2.1, 2.2 or 2.6 that is the Athlete or other Person’s first anti-doping offence shall be as follows, subject to potential reduction or suspension pursuant to Rule 10.4, 10.5 or 10.6:

10.2.1 The period of Ineligibility shall be four years where:

(a) The Anti-Doping Rule Violation does not involve a Specified Substance, unless the Athlete or other Person establishes that the Anti-Doping Rule Violation was not intentional.
(b) The Anti-Doping Rule Violation involves a Specified Substance and the Integrity Unit establishes that the Anti-Doping Rule Violation was intentional.”

85. Blood manipulation by whatever method is necessarily intentional. This is the Athlete’s first ADRV. The appropriate period of Ineligibility is therefore four years.
86. The Tribunal was told and accepts that the Athlete did not compete after 9 December 2019 when he accepted a voluntary Provisional Suspension. Pursuant to Rule 10.10.2 (a) the Athlete should be credited with that period of suspension already served. Therefore the period of Ineligibility will commence on 9 December 2019 and expire at midnight on 8 December 2023.

(2) **Disqualification of results and other consequences**

87. Rule 10.8 ADR provides:

"Disqualification of Results in Competitions Subsequent to Sample Collection or Commission of an Anti-Doping Rule Violation

In addition to the automatic Disqualification, pursuant to Rule 9, of the results in the Competition that produced the Adverse Analytical Finding (if any), all other competitive results of the Athlete obtained from the date the Sample in question was collected (whether In-Competition or Out-of-Competition) or other Anti-Doping Rule Violation occurred through to the start of any Provisional Suspension or Ineligibility period shall be Disqualified (with all of the resulting consequences, including forfeiture of any medals, titles, ranking points and prize and appearance money), unless the Disciplinary Tribunal determines that fairness requires otherwise."

88. In the Answer Brief Mr van Dijk argued that even if the Tribunal reached a conclusion adverse to the Athlete on the ADRV there was no evidence that he doped on 9 March 2019 or benefited from any such doping thereafter. Therefore, he submitted the Tribunal should not disqualify all results and other consequences thereafter. He also prays in aid delay in pursuing the case\(^39\).

89. There is no evidence of delay. In fact, the Athlete repeatedly sought and was granted time to file an answer and responses. In any event, the arguments marshalled on behalf of the Athlete overlook the clear terms of the Rule 10.8 and the finding that he committed an ADRV by using a Prohibited Substance or Prohibited Method before blood was taken on 9 March 2019.

\(^39\) §7.5-7.10
90. Therefore, the Tribunal orders that the Athlete’s results from 9 March are disqualified with all resulting consequences including forfeiture of any medals, titles, ranking points and prize and appearance money. The Tribunal is satisfied that it is not unfair to so order.

G. COSTS

91. Rule 8.9.3 ADR states:

“The Disciplinary Tribunal has the power to make a costs order against any party, where it is proportionate to do so. If it does not exercise that power, each party shall bear its own costs, legal, expert and otherwise. No recovery of costs may be considered a basis for reducing the period of Ineligibility or other sanction that would otherwise be applicable.”

92. WA sought a “contribution” to its legal costs.

93. We note the significant costs of defending the proceedings and the consequences for the Athlete. We do not consider it proportionate to make any order for costs and therefore do not.

H. RIGHT OF APPEAL

94. This decision may be appealed to the CAS in accordance with Rule 13 ADR.

95. The deadline for filing an appeal to CAS is 30 days from the date of receipt of the decision by the appealing party (Rule 13.7.1 ADR).

I. SUMMARY

96. For the reasons set out the Tribunal:
   a. Finds the ADRV contrary to Rule 2.2 ADR proved;
b. Imposes upon the Athlete a period of Ineligibility of four (4) years commencing on 9 December 2019;

c. Orders that the Athlete’s results from 9 March 2019 are disqualified with all resulting consequences including forfeiture of any medals, titles, ranking points and prize and appearance money; and

d. Makes no order for costs.

Christopher Quinlan QC (Panel Chair)

On behalf of the Disciplinary Tribunal

8 October 2020

London, UK