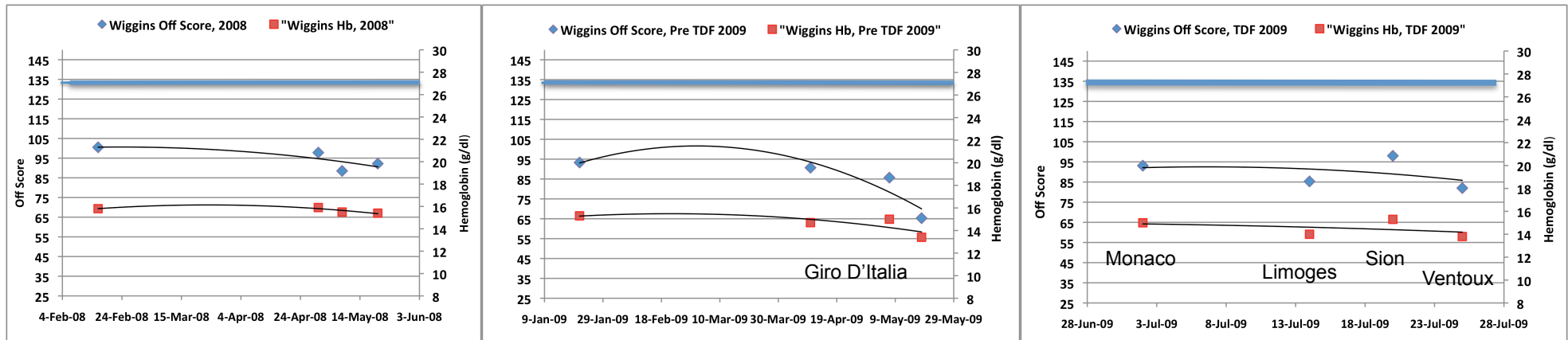


Blood Profiles for Bradley Wiggins (Feb 16th, 2008 to July 25th, 2009)

2008

2009 Pre TDF

2009 TDF



Two variables are shown – the “Hemoglobin” (red squares), which is the concentration of oxygen carrying protein in red blood cells and the “Off Score” (Blue Diamonds), which is a variable calculated from the hemoglobin concentration and the percentage of reticulocytes or immature red blood cells (Off Score = $Hg - (60 \times \text{Square Root of Reticulocytes})$). The Off Score, which takes into account the relationship between hemoglobin and reticulocyte concentration is currently used as the reference point for assessing an athlete’s blood profile. Since reticulocytes tend to decrease when hemoglobin is artificially high, the combination of a high hemoglobin and a low reticulocyte raises the Off Score. The upper limit for the Off Score is 134 (indicated by the blue line).

Averages and standard deviations for hemoglobin, reticulocytes, and off score were 14.93 ± 0.8 g/dl, 1.00 ± 0.16 %, and 89.4 ± 9.4 , respectively. All of these values are well below the cut off limit, exceeding 4 times the standard deviation below the upper limit for the Off Score average. Most importantly, the trend during the 2009 Giro D’Italia and the 2009 Tour de France was downward, indicating a drop in blood parameters over the course of each race.