HOT springs are generally considered to be destinations of rest and relaxation, but that’s not always the case! Wai-O-Tapu is an area of New Zealand in which the landscape has been sculptured by most colorful geothermal activity that isn’t suitable for swimming, but still unquestionably sublime to observe from a distance.

The champagne pool is the effervescent wonder within the Wai-O-Tapu geothermal area in the North Island of New Zealand whose temperature typically averages around 74 degrees Celsius. However, the geothermal water below the pool is significantly hotter — around 260°C Celsius. The name Champagne Pool is derived from the constant emanation of carbon dioxide (CO₂) gas from the bottom of the pool, similar to a glass of fizzy champagne.

This terrestrial hot spring was formed 900 years ago by a hydrothermal eruption, which makes it in geological terms a relatively young system. Its crater is around 65 m (213 ft) in diameter with a maximum depth of nearly 62 m (203 ft) and is filled with an estimated volume of 50,000 m³ (1,800,000 cu ft) of geothermal fluid. The pool water contains high concentration of heavy metals and its pH is 5.5 making it slightly acidic.

The vibrant colors come from a rich deposition of minerals and silicate. At the edges of the pool, the silica is lined with bright orange subaqueous deposits such as orpiment (As₂S₃) and stibnite (Sb₂S₃) that solidify out of the cooler water. Although Champagne Pool is geochemically well classified, it is a potential habitat for microbial life forms. The silicate structure around the edge of the pool is bristling with thermophilic microbial inhabitants.

Two novel bacteria and a novel archaean have been successfully isolated from Champagne Pool. CP-B2 is a new bacterial species named *Venenivibrio stagnipumantis* isolated from the pool. Within the order *Aquificale*, this species can tolerate quite high concentrations of arsenic and antimony compounds.