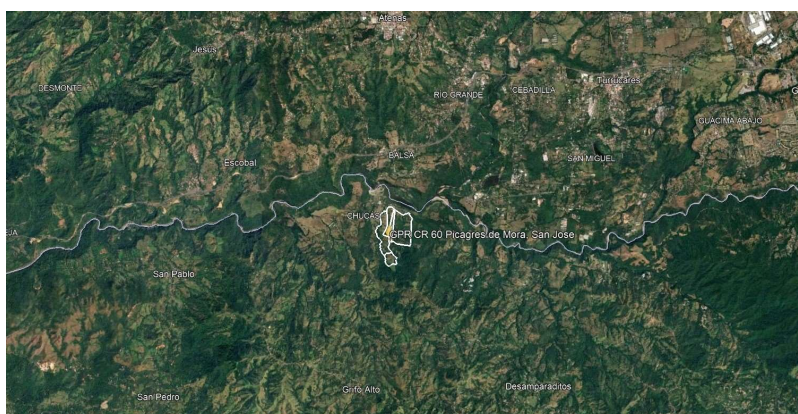


GPR CR 60 Picagres de Mora, San Jose

At the request of Pura Vida Drillings, S.A., we have been asked to conduct a study on a property located in Chucás, province of San José, Costa Rica, to determine if there are veins with significant flows for exploitation.



For the study, we have excluded surface and/or stagnant waters to focus on the main veins that traverse the area. We have identified **one cold vein and one thermal vein** within the property.

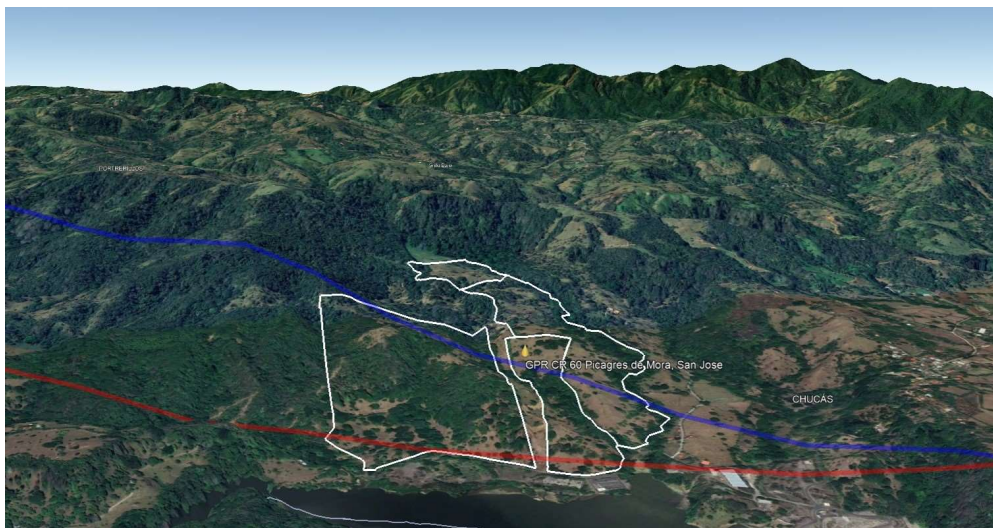
Given the geology of the area, it is possible to find water outside the veins; however, these sources may not be sustainable or stable over time, as they depend exclusively on localized rainfall. Therefore, we recommend, whenever possible, drilling wells in the veins to ensure a stable resource.



* A correction factor has been applied to avoid revealing the exact location of the vein.

The study reveals that the **cold vein** runs from the southeast to the northwest and is located at a depth of **180 meters**. However, due to the fracturing of the terrain, the vein's influence is likely to be encountered before reaching this depth. The sustainable flow that can be obtained from each well drilled into this vein is **2,5 l/s**.

The **thermal vein** runs from the northwest to the southeast and is located at a depth of **320 meters**. However, due to the fracturing of the terrain, the vein's influence is likely to be encountered before reaching this depth. The sustainable flow that can be obtained from each well drilled into this vein is **6 l/s** and the **temperature** of the water is **49°C**.



The flow rates defined in this study represent the maximum recommended extraction rates per well. While it is possible to replicate these wells and increase the total flow exponentially, we do not recommend exceeding the defined rates under any circumstances. Due to the formation and structure of the vein, extracting higher flows could potentially lead to collapses, saturation, or unstable well performance.

The vein has sufficient flow rates to support a large number of wells; however, it is crucial to adhere to the maximum flow rates per well and to establish a minimum distance between wells, which should be determined on a case-by-case basis.

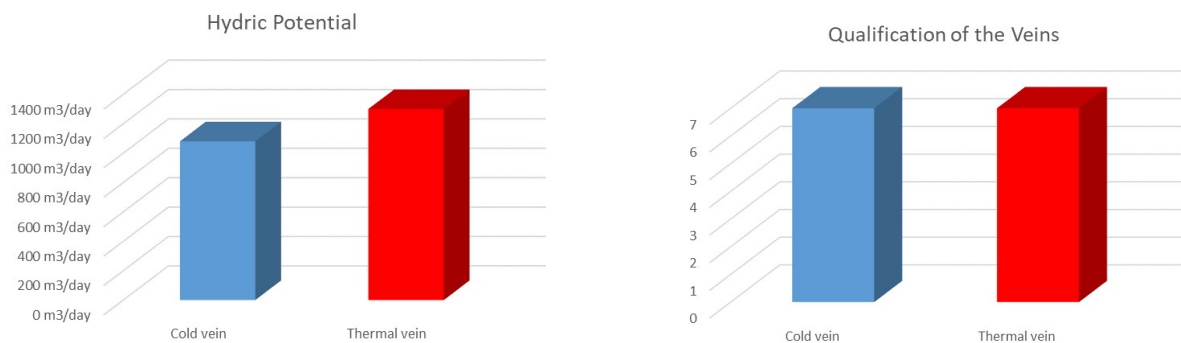
In some instances, surface waters can receive natural recharge from the vein through faults in the terrain that allow water to ascend. Therefore, sustainable and stable yields can occasionally be obtained at shallower depths than previously described. However, we still recommend adhering to the established flow rates and optimally exploiting the vein by reaching the indicated depths to avoid future fluctuations.

Hydric Potential of the Terrain

Given the terrain's construction and the potential and structure of the vein, we proceed to define the water potential of the vein within the property's boundaries.

In the **cold vein** described, within the property limits, it is possible to drill **6 wells**. This would mean a maximum flow of **15 l/s**, resulting in a water potential of **1080 m³/day** (pumping for 20 hours a day).

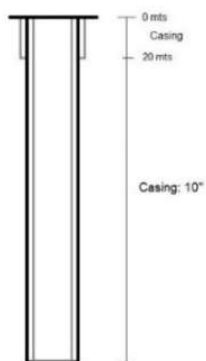
In the **thermal vein** described, within the property limits, it is possible to drill **3 wells**. This would mean a maximum flow of **18 l/s**, resulting in a water potential of **1300 m³/day** (pumping for 20 hours a day).



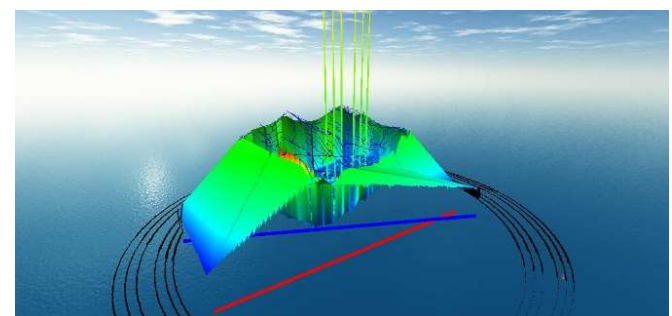
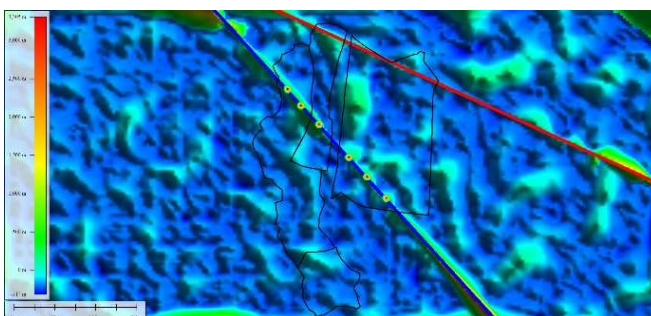
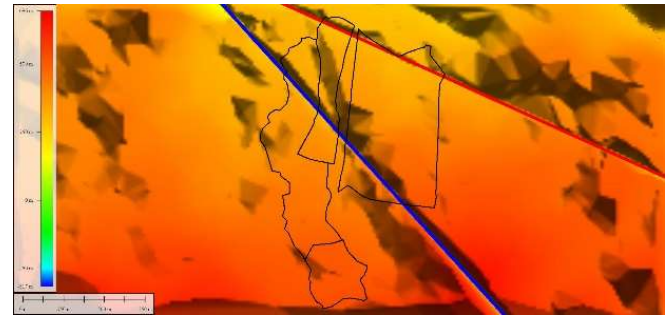
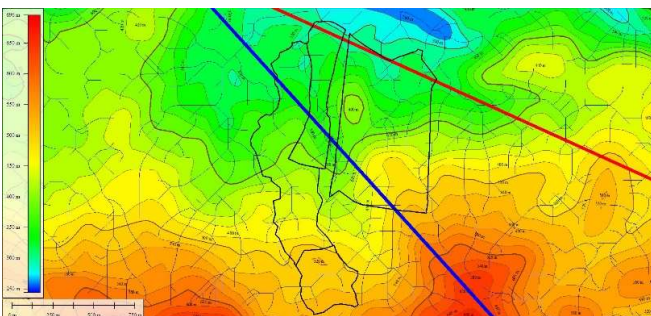
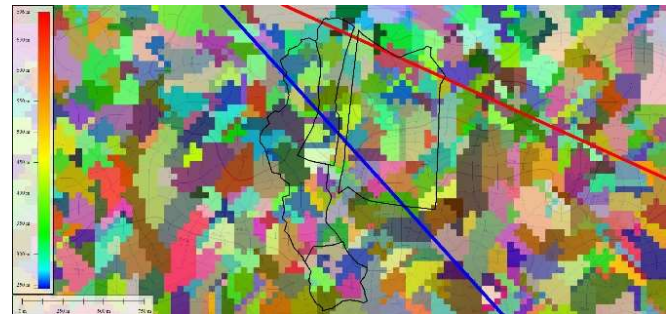
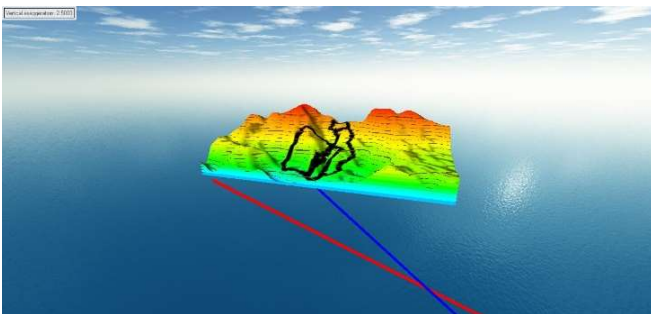
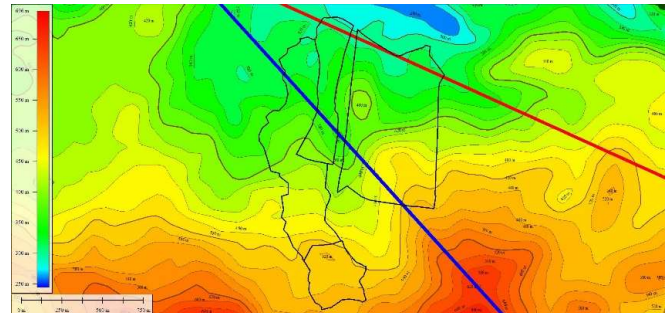
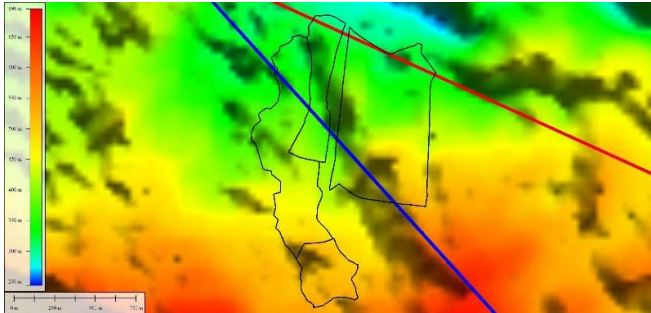
The flow rates described have been determined based on the construction of a well with a 10inch casing.



Well desing



Other maps:



Luis Castelló Turell
Aquafuture Solutions, S.L.