

CRUCERO & LORISCOTA: GEOTHERMAL EARLY STAGE ASSETS

- ✔ 19,400 / 18,000 hectares SE Peru
- ✔ Region of hot springs and silica sinters
- ✔ Alterra plan; advance to inferred status

The Crucero and Loriscota areas lie 50 km NW of Candarave (8,500 inhabitants) the largest town in the area, 100 km S of Puno (120,000 inhabitants), the provincial capital city. Ranching is the main economic base of the area.

Crucero and its adjacent area Loriscota, cover a 7 km long area of silica sinter and hot springs that follow extensional faults believed related to a strike-slip pull-apart basin. In Crucero, in particular, there are hot springs that approach boiling in places, widespread opaline silica sinters, and favorable liquid geochemistry associated with extensional faults. A relatively young rhyolite dome complex is located at the border between these areas.

Based on seven samples taken by Alterra staff and analyzed by the Geological and Nuclear Sciences (GNS), hot spring fluids at Crucero are comprised of near-neutral, sodium-chloride waters typical of liquid-dominated geothermal reservoirs. Geothermometry ranges from 153 to 250°C indicating that some re-equilibration of fluid chemistry is occurring before the waters reach the surface. The fact that the K-Na-Ca geothermometer ranges and the Na-K geothermometer ranges up to 250°C offers expectations of a significant, high temperature reservoir at depth.

A transmission line in the 220 kV class lies 45 km to the NW. There are several roads cutting through the area, one of which is the paved Binational highway that connects the Peruvian Pacific coast with the town of Desaguadero on the border Peru – Bolivia.

