Ollachea Orogenic Gold Deposit, Peru: Discovery and Advancement

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Minera IRL has made an important orogenic gold discovery at Ollachea, located in the eastern Andes of southern Peru. Drilling over a 3-yr period has defined an indicated mineral resource of 10.7 Mt grading 4.0 g/t gold (1.4 million ounces) plus an inferred mineral resource of 13.7 Mt grading 2.8 g/t gold (1.2 million ounces). Exploration cost of discovery is approximately US$9 per ounce. A prefeasibility study on the Minapampa zone applying a price of US$1,100/ounce gold indicates a robust project that could produce more than one million ounces over a 9-yr mine life. The deposit is open-ended in both directions along strike as well as downdip, providing excellent "blue-sky" upside discovery potential that could extend mine life and life-of-mine gold production.

The regional geologic setting of the Ollachea Project is characterized by a significant change in the strike of the Andes whereby, as opposed to the dominant southeast Andean trend, the stratigraphy is locally aligned approximately east-west. Project geology is dominated by phyllite of the Devonian Sandia Formation and variably bedded graphitic, carbonaceous shale of the overlying Siluro-Devonian Ananea Formation, which hosts the gold-bearing deposits. Andesitic volcanic rocks crop out south of the sedimentary units, and both the sedimentary and volcanic rocks are intruded by nepheline syenite to the south while a batholithic granodiorite intrudes toward the north. Intraformational contacts and a strong penetrative cleavage in the sedimentary package of rocks parallel two district-scale thrust faults that bound the phyllitic slate hosts to gold mineralization.

Two principal tectonic events are recognized in the Ollachea district: D1, a northwesterly to southeasterly directed compressive event forming northeasterly striking zones of shearing, folding, and thrusting, with localized thrusting of the underlying Sandia Formation over the Ananea Formation—gold mineralization is associated with the D1 event; and D2, a prolonged compressive event (Late Triassic, approx. 220 ± 10 Ma), oriented north-northeast to south-southwest, which folded the Ollachea district into the form of a dome structure and changed the orientation of the slates in the central area of the district to an almost E-W strike.

Gold mineralization occurs within up to seven N-dipping, NE-plunging carbonaceous slate host horizons within a shear zone up to 200 m thick. Mineralization has been delineated for approximately 2,000 m of strike, from the Minapampa zones in the east to the western drilled limit of Concurayoc (Fig. 1). The mineralized package has been traced to over 400 m below surface and remains open along strike as well as at depth.

Controls on mineralization include lithology, structure, mineralogy, and alteration. Native gold, with average grain diameters between 20 to 200 µm, is hosted within mineralized horizons containing swarms of quartz-sulfide veins, veinlets, and microveinlets which are broadly concordant with the slaty cleavage. Boudinaging along bedding and shear planes is common. Micro- to macroscale deformation features provide open spaces facilitating plumbing for the

influx of mineralizing fluids. From an economic and mining perspective, gold mineralization is contained in well-defined horizons from 2 to 30 m in thickness over considerable strike and dip extent.

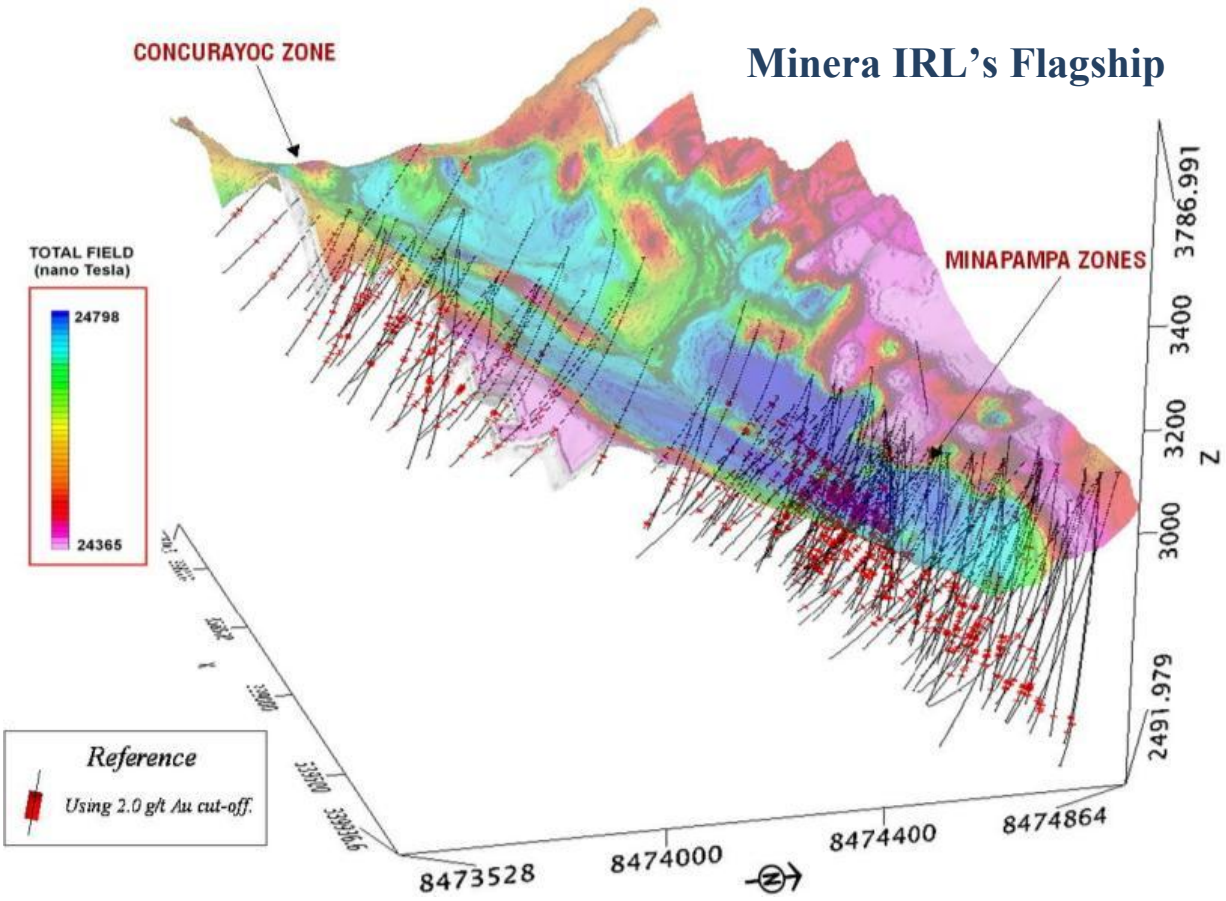

Fig. 1. Isometric 3-D view through the Concurayoc and Minapampa zones of the Ollachea orogenic gold deposit (ground magnetic signature is draped across the steep topography of E-W–striking valley; drill hole traces and gold intersections >2 g/t are also shown).