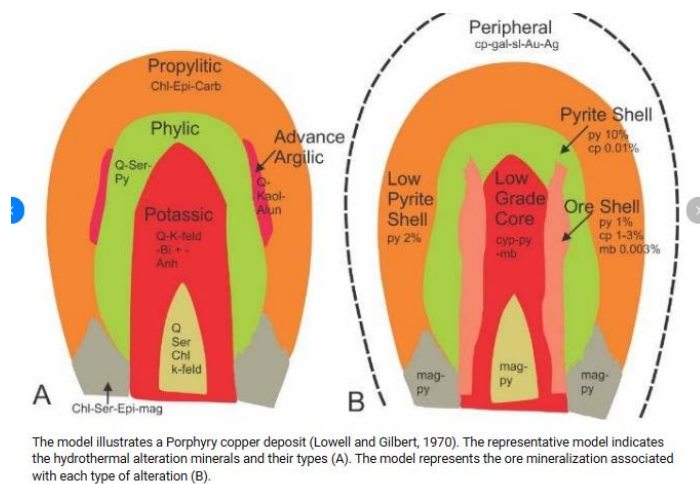
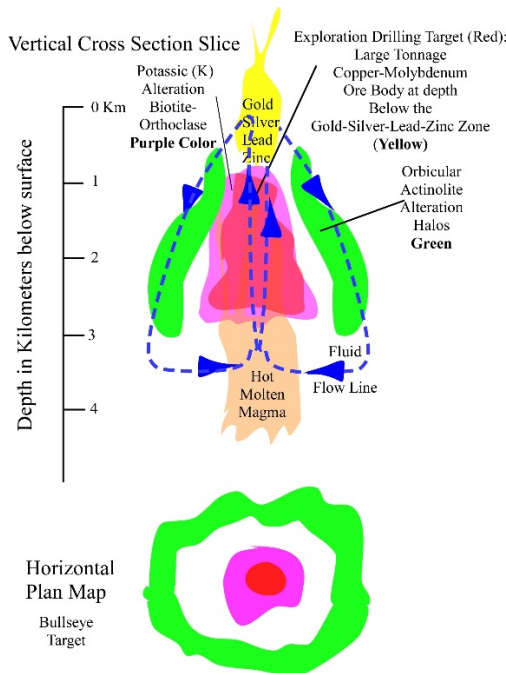


Our **Logo** depicts the first orbicular actinolite alteration ring pattern mapped anywhere in the world (shown as green dots) in our Logo representing the outer edge of magmatic hydrothermal advective fluid flow in porphyry copper deposits. Here, diffusion is manifest locally in spherical growth structures. This feature represents the outer ring on a bullseye exploration target and enlarges the target size of porphyry copper deposits. Actinolite orbs were first discovered in diamond drill core by Bill Atkinson and Marco Einaudi (Atkinson and Einaudi, 1978) exploring the Carr Fork sedimentary wall rock are for the Anaconda Company the Bingham Canyon porphyry deposit district, Utah. Hydrothermal orb alteration has also been noted at three deposits in Chile: Caspiche, La Escondida, and El Hueso, Cajamarca in Peru, Morenci and Fortitude Copper Canyon in the US, Cananea Mexico, and Oyu Tolgoi in Mongolia (Marco Einaudi, personal communication, 2019). Several of these deposits are world class size. Thermodynamic modeling by Brimhall (2024) shows that the actinolite orb ring is a **discriminator** between large PCD systems and systems that are likely to be smaller and less economic.

Clementine Porphyry Cu Model

Lowell and Guilbert Model (1972)



Brimhall, 2024, Montana Bureau of Mines and Geology *in press*

Lowell, and Guilbert, 1972, Economic Geology, v. 65, p. 373-408.

In Clementine Exploration we seek to discover new deep porphyry copper deposits amenable to modern underground mining with a minimal environmental footprint deserving of a social license for mining. Our logo reflects the certainty that copper (shown as the pick in the pick and shovel) remains as the fundamental element for all electrical applications from the mundane to the most aspirational sustainable green technology addressing climate change with wind turbine, solar panels, and electrical vehicles. However we have replaced the traditional shovel in the pick and shovel with a blue (Gallium Nitride) LED. This symbolizes that mining, implementing best practices, is no longer an arduous trade. Instead mining is becoming a modern, high-tech industry using ergonomic design, tunnel boring machines, mechanical miners, and robotics with human safety, environmental quality, and community involvement as uncompromising principles. Copper, rare earth elements, and rare metals are the essential raw materials for all forms of electrical power transmission, high field strength magnets, and semi-conductor applications. Gallium, arsenic, antimony, tellurium, selenium, and germanium are essential for making high purity semiconductors used in computer chips and light emitting diodes (LEDs) which are essential to computing and sustainable energy production and green technology. The vertical red line in our logo represents late vein systems. The head frame represents the ultimate deep underground mine centered on the orb system outline in green dots. Our Clementine logo honors mining as the unique resource base on which all civilizations in human history have been classified from the Stone Age to the Copper, Bronze, Iron, and present Information Age. Replacement of the shovel reflects the Herculean progress made. The LED represents the illumination necessary for innovations remaining to attain global sustainable energy production in a world dominated by the humans.