

# SEG 2023 Conference: Resourcing the Green Transition

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## **Epithermal and Porphyry Style Copper-Gold Mineralization at Arthur's Seat Project, Jamaica**

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The Arthur's Seat project is located in the central inliers of Jamaica, approximately 45 km west-northwest of the capital city of Kingston. The Arthur's Seat epithermal vein swarm is a true maiden discovery, with almost no modern-day mineral exploration.

The project area is overlain by Lower Cretaceous andesitic volcanic rocks of the Arthur's Seat Formation. The Arthur's Seat Formation lithologies comprise a thick sequence of conglomerates and volcanic breccias, with intercalated ash and crystal tuffs and andesitic to basaltic andesite lava flows. The volcanic package is intruded by a series of monzonite and andesite dikes.

Three major vein and breccia zones have been discovered to date, varying from centimeters to 2 meters in true width, and typically strike northeast, north-northwest, and east-west. The main quartz vein zone is mineralized for over 3 km in strike length and is up to 25 m wide. Veins and breccia zones are characterized by massive, cockade, comb (dog-tooth), and drusy quartz textures; some of them contain rare carbonates. Shortwave infrared analysis indicates smectite to illite with chlorite alteration and a distal halo of illite-chlorite  $\pm$  epidote alteration; adjacent to the vein, the smectite-illite alteration zone is predominant.

The Arthur's Seat project is a true maiden discovery and is early on showing significant potential to host an epithermal gold-copper deposit. Rock chip grabs from outcrop veins and breccias assayed up to 58 g/t gold and 11.1% copper. Rock slabs show identical vein and breccia textures to the little-known Pennants gold deposit located 11 km to the west. Although the project is early in its exploration development, two large, discrete magnetic anomalies coincident with the vein system, porphyry B-veins hosted in monzonite, and secondary copper oxides suggest there is a nearby porphyry system.