

### **Oak Dam West IOCG deposit, South Australia – Evolving Geological Knowledge as Resource Definition, Advanced Exploration and Mining Studies Continue**

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Oak Dam West is a breccia hosted iron-oxide copper-gold (IOCG) deposit located approximately 65 km southeast of the Olympic Dam IOCG deposit, along the eastern margin of the Gawler Craton. Even though the first drill hole into the deposit was completed in 1981 to a depth of 1256.2m, it intersected hematite-rich, Cu-barren breccias from 727m to end-of-hole. The overlying 727m of undeformed and unaltered Meso- to Neoproterozoic sediments and ~530m of barren breccias were not considered of interest because the potential mineralized rocks occurred well below the economic mining depth of the 1980s. However, two further holes were completed within a few years, with one reaching basement of weakly altered and unmineralized granitoids at ~875m depth.

The prospectivity of the area was re-evaluated by the BHP Exploration team in 2017. In mid-2018, AD22 intersected chalcopyrite-pyrite mineralized breccias. AD23 intersected high copper-grade chalcocite-rich hematite breccias, along the contact with the central Cu-barren breccias, with 425.7m at 3.04 % Cu and 0.59 ppm Au, becoming the discovery hole. Since then, resource definition, advanced exploration activities and mining studies continue, with the first Mineral Resource (1340 Mt, 0.66 % Cu, 0.33 ppm Au) reported in August 2024.

The challenges, opportunities and ore body knowledge evolution by the Oak Dam geoscience team have been significant. Because the deposit occurs below ~750-900m of cover and mineralization is steeply dipping, it is not unusual for drill holes to exceed 2km in length, necessitating the use of navigation drilling. Assaying of all basement drill core samples for an extended suite of elements, supported by measured mineralogy has improved the classification of alteration zonation patterns as well as assessing AMD risk. Seismic surveys, completed to assist with rock mass characterization of the cover sequence, were instrumental in understanding the underlying deposit structural architecture and revealing new drilling targets.