



HOD MADEN GOLD-COPPER PROJECT

SCOPE OF WORK - DEFINITIVE FEASIBILITY STUDY

Hod Maden is an underground gold-copper project near the town of Artvin located in north-eastern part of Türkiye near the Georgian border. The Project is being developed by Artmin Madencilik San. Ve Tic. A.Ş., (Artmin), a company owned by Lidya Madencilik (70%), a subsidiary of Çalık Holding, and Sandstorm Gold Limited (30%).

GR Engineering was appointed as Lead Engineer for the Definitive Feasibility Study (DFS) in 2019 to comply with a NI 43-101 standard and coordinated the input of the contributing consultants for geology, mining, geotechnical, hydrology, hydrogeology, financial modelling and environmental aspects of the Study. Artmin contributed to the social and permitting aspects of the Study.

The Project envisions a process concentrator capable to treating 800 ktpa of underground ore to produce a saleable copper concentrate containing appreciable gold credits and a saleable pyrite concentrate by-product.

The Project site is located in a mountainous area with significant road access and utilities infrastructure required to be established for the site.

The results of the DFS reflected a robust project with positive NPV which enabled the Project Owners to advance to permitting with the completion and filing of an EIA with the relevant regulatory bodies in Türkiye.

An update to the DFS and lodgement of an NI-43-101 Technical Report was prepared under the direction of GR Engineering on behalf of Sandstorm Gold Limited in Q3 and Q4 of 2021.

Client: Artmin Madencilik San ve Tic A.S

Commodity: Gold-Copper

Project Type: Definitive Feasibility Study

Region: Türkiye

Location: Artvin, Türkiye

Award Date: May 2019

Completion Date: December 2020