International Mining

Howden turbo compressor set for ioneer's Rhyolite Ridge lithum-boron project sulphuric acid leach plant

Paul Moore 29 January 2021

A Howden SF18 single-stage turbo compressor, with its high aerodynamic efficiency and wide performance envelope, will be used to support the 3,500 Mt/d sulphuric acid plant's leach process at ioneer's Rhyolite Ridge lithium-boron project, located within the Silver Peak mountain range in Nevada.

Howden says its longstanding experience in the sulfuric acid industry, quality equipment, and partnership with SNC-Lavalin's engineering and execution teams will enable the project to move forward quickly. The compressor will be packaged at its Springfield manufacturing facility.

Rhyolite Ridge is the most advanced lithium project in the United States. Rhyolite Ridge, owned by Ioneer USA Corporation (a subsidiary of ioneer Ltd, an Australian, ASX-listed company), is a unique sedimentary deposit where lithium and boron can be readily leached from the host rock (searlesite) using dilute sulphuric acid. SNC-Lavalin will design and engineer Rhyolite's sulphuric acid plant.

Based on the analysis in its comprehensive Definitive Feasibility Study released in April 2020, the project is expected to produce lithium at a lower cost than current brine and spodumene lithium mines, placing it at the bottom of the industry cost curve. The lithium and boron mineral resource is estimated at 146.5 Mt, including an ore reserve of 60 Mt. Ioneer expects to mine and process 63.8 Mt over the 26-year mine life at an average annual rate of 2.5Mt/y. With its ideal geographic position, low-cost and large-scale operation, and a long-life resource with verified expansion potential, Rhyolite Ridge is positioned to support the global surge in electric vehicles and energy storage by becoming the first major American lithium supplier as well as becoming the next global supplier of boric acid.