SEG 100 Conference: Celebrating a Century of Discovery

F15
Inserting orebody knowledge into resource definition

Jelena Puzic
Teck Resources Limited, Vancouver, BC, Canada

Geoscience has an important role to play in maintaining and characterizing a global mineral supply for sustainable development. The last few years have brought significant technological advances in the area of rock and material characterization, thereby enabling related technical disciplines to add value and manage risk across a digitally supported mining value chain. As the industry races to modernize its existing mines and develop the next generation of operations, geoscientists will be enablers, leveraging their foundational knowledge while developing the new ideas and creative thinking necessary to bridge the old and the new.

Geoscientists are rapidly advancing and embracing new ways to collect, integrate, interpret, model, and communicate quantitative data streams across a range of scales and mining stages. Multidisciplinary scientific and technical collaboration with neighboring (and new!) disciplines is essential to ensure geoscience products are embedded into an evolving operational workflow. In particular, rapid advances in data science require collaboration with subject matter experts from the geosciences to ensure advanced analytics and artificial intelligence inputs are appropriate and that outcomes are geologically reasonable and consistent with the “on the rocks” data and knowledge. This talk will explore examples of the evolving geoscience workflow including new innovations and sensors fueling the change in how we interact, integrate, and interpret drivers of value and risk at our mineral resources—ultimately enabling us to make better decisions.

By leveraging data and learnings from the past and ensuring the right data at the right time in the present, we will build more reliable and sustainable orebody predictions for the future.