

Linking Mineral Resource and Reserve classification with feasibility study levels, operational knowledge and forecast relative accuracy

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ABSTRACT

Disclosure standards and guidelines aligned with the CRIRSCO international reporting template are developed to inform stakeholders about the relative accuracy and confidence levels of disclosed information and to support investment decisions, particularly when advancing projects through different project development stages. These development stages include from early to advanced exploration project stages, then to pre-development stages with Mineral Resources and pre-feasibility and/ or feasibility levels of study before the final development stages where a decision has been made to proceed with construction or production or both.

The definitions of Mineral Resource and Reserve classification categories and feasibility study levels are not really aligned with operating mines as they address pre-development project assessments and reporting on medium to long term strategic, life-of-mine (LOM), timelines. However, this same terminology is generally used in short-term operating conditions even though the definitions are not necessarily fit-for-purpose in this environment where short-term estimates and reporting is supported by additional data derived from infill sampling, grade control activities, short-term models, schedules, blending and short-term reconciliation.

This paper discusses:

1. How various stakeholders, such as competent/ qualified persons, mining company leaders, investors, lenders and regulators, generally interpret the meaning of Mineral Resource and Reserve categories in terms of the relative accuracy of the estimates, their link to feasibility study levels and their contribution to LOM schedules.
2. The degree to which companies recognise and apply enhanced operational knowledge to reflect a short-term view of relative accuracy and confidence levels in Mineral Resource and Reserve estimates and forecasts, as well as how this knowledge is applied to support ongoing Mineral Resource and particularly Reserve generation and reporting.

The discussion is informed by responses to a survey completed in 2020 by several mining companies.