

IMPLEMENTATION OF SUSTAINABLE MINING METHODS FOR THE PLATINA SCANDIUM PROJECT IN NSW

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Scandium has favourable alloy properties that make it highly valuable. However, production of Scandium is generally associated with a by-product from waste reprocessing streams that limits current production capacity. Though the current Scandium market is limited, there is significant growth potential in recreational, domestic and industrial applications.

Platina Resources Limited (Platina) recently completed its feasibility study for the development of a Scandium-Cobalt project in NSW, Australia. It is based on one of the largest and highest-grade Scandium deposits defined to date in the world, with the potential to operate well beyond normal mine planning timeframes. As a consequence, social licence to operate and sustainable development aspects were considered as critical to the development planning process and commenced during the initial scoping study assessment.

The initial Scandium market constraints were considered with the expected growth rate as a dictating factor in the development. It required a small initial development with options to expand as and when markets were ready for increased production. It entailed a longer-term plan for construction with multiple stages, modularisation and a long-term perspective on social and environmental management issues.

Key to this development is sustainable mining principles for life cycle management. Innovative measures include processing off-site using existing infrastructure, limiting the operational mining footprint and repurposing ex-industrial land. In addition, a focus on locally sourced labour to contribute to skills retention and adapting the mining schedule to integrate with agricultural labour cycles. Finally, mining and rehabilitation is continuous with in-pit dry stacking of residue to minimise environmental, legacy issues and water usage.

In our paper we will present innovative methods of accomplishing these outcomes that are both beneficial to the community and long-term mining prospects.

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