

Research Project ??

Slow Cooling of an Iron Matte

Project Leader

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Research Team

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Sponsor

Compass Resources NL

Project Duration

2000–2001

OBJECTIVES

The sponsor, Compass Resources NL, was investigating treatment options for a large polymetallic deposit in the Northern Territory as part of an AusIndustry R&D Start Grant. One of these involved the slow cooling of matte produced by the smelting of a sulphide flotation concentrate. The aim of the slow cooling was to concentrate the valuable metals (Cu, Co & Ni) into phases that could be separated by physical means.

PROGRESS

The project is ongoing. Pt. B was completed and reported in September 2000, Pts. C & D in May 2001. Pt. B involved the slow cooling of a range of synthetic mattes produced from relatively pure chemicals. Pts C & D involved the treatment of larger amounts of matte previously prepared by Ausmelt. Material from the latter experiments has been used in further flotation and physical separation testwork. Mattes from the experiments have been characterised by chemical , XRD and microprobe analysis.

FUTURE DIRECTIONS

Complete and report the current work (Pt.E).