

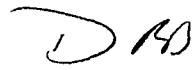
Giant
YELLOWKNIFE MINES LIMITED

MEMO TO: D. Cooper
CC: J.S. McAlpine, S.E. El-Alfy
FROM: D. Bartlett
DATE: October 27, 1988
SUBJECT: TRP Projected Cyanide Usage

TRP performance for the 1988 season was a NaCN addition of 1.0 lb/ton of feed and a residual free NaCN level of 0.3 lb/ton of solution (150 ppm). Assuming the average density to be 37.5% solids, the above data indicate that 50% of the NaCN added was consumed by cyanicides in the feed. The remaining 50% reported as free cyanide in TRP tailings solution.

The question is how low can the cyanide addition be reduced without sacrificing gold extraction or incur precipitation of dissolved gold on reactive sulphides? A critical tailings free cyanide level is required to ensure maximum gold recovery to carbon. The reactivity of sulphide minerals in GYML tailings is low (reducing power <100) and thus the possibility of gold precipitation may not be significant. My feeling is that the NaCN addition can be reduced to 0.6 - 0.75 lb/ton without ill effect. This question can be investigated over the winter using bottle roll lab tests on a one week composite slurry sample I have prepared.

There is the potential to significantly reduce TRP operating costs or improve cyanide inventory. The operating control strategy for cyanide addition will also deserve scrutiny to be compatible with a reduced margin for error.


Doug Bartlett