

IMPROVED CHUTE LINER MATERIAL SELECTION

Location:	Western Australia	Mine Type:	Gold mine
Machine:	HPGR choke chutes	Product:	SPOT60 Wear Plate



SPOT 60 OVERLAY WEAR LINERS AFER 3500 HOURS AND 8.3 MILLION TONNES



STANDARD OVERLAY PLATES AFTER 1300 HOURS

At a WA gold mine, the customer had an ongoing issue with high wear rates in their high pressure grinding rolls (HPGR) choke chutes. After careful analysis of the wear situation, this was resolved by improving material selection; replacing the standard chromium overlay liners with SPOT60 liners. The result was a dramatic improvement in wear rates.

SPOT60 liners exceeded the life of the original plate with little wear and lasted the entire life of the roll, which run for an average of 5,000 hours. Since improving the material selection, the following has been achieved:

- Liner life in this chute has increased from 430,000 to more than 15 million tonnes.
- While the original overlay plates were changed approximately every 1,300 hours, the SPOT60 liners completed the full 5,000 hours with less than 8mm wear on a 19mm liner.
- Relief on maintenance resources; labour hours reduced by 300 hours for the life of the chute.
- Reduced need for high-risk tasks in confined spaces.
- Reduced down time of machines.

Through a combination of in-service monitoring and post-removal analysis, the next stage of development is to map wear patterns, replacing lower areas only with lower cost materials while continuously improving liner performance.

SPOT60 Liner Performance Table

	Target	Previous Plate	SPOT60
Annual tonnes	> 16 million hours	Max 3.4MT	15MT
Average life	> 6,000 hours	1,300 hours	5,700 hours