

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. These choke chutes were fitted with standard chromium overlay liners which were showing significant wear after only 1,300 hours of production. Through a careful analysis of the wear situation, it was determined that Austral Technologies SPOT60® liners were ideal for this environment. After replacing the standard chromium liners with Austral Technologies SPOT60® liners, the life of the chute was increased significantly.

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 10,000 hours. Since the gold mine switched to Austral Technologies SPOT60® liners, the following has been achieved:

- Liner life in this chute has increased from 3.4 million tonnes to more than **23 million tonnes**.
- While the original overlay plates were changed approximately every 1,300 hours, the SPOT60® liners completed a full **10,000 hours**.
- Relief on maintenance resources; labour hours reduced by **450 hours** for the life of the chute.
- Reduced need for high-risk tasks in confined spaces.
- Reduced down time of machines.

SPOT60® Liner Performance Table

	Target	Previous Plate	SPOT60®
Annual tonnes	> 16 million tonnes	Max 3.4 million tonnes	23 million tonnes
Average life	> 6,000 hours	1,300 hours	10,000 hours

The above results were achieved through a collaborative process of post-removal analysis and wear pattern mapping with Austral and their customer. This allowed Austral Technologies to continuously improve their SPOT60® liners in order to maximise their wear performance.