

Repair AF2111 Divertor



During operations, the previously modified divertor failed on the RHS and cracked on the LHS, prompting a Break In task to refurbish and reinstall it until a new design can be implemented.

Scope of work

The work scope involved the repair of the AF2111 divertor, which had failed during operations, snapping completely away from the head chute wall on the RHS of flow and sustaining significant cracking on the LHS. RTIO submitted a Break In task to refurbish and reinstall the divertor, allowing it to remain operational for the next 13 weeks until a new design could be implemented.

Originally planned to be repaired in position, the divertor required full removal due to the extent of wear and damage. Investigation identified that an additional wedge plate installed during a previous shutdown had added weight to the structure, contributing to steel cracking from rock impact on the lower lip. The team collaborated closely with the RTIO shutdown team to establish an effective timeline and complete the Break In successfully.

Overview

CLIENT

Rio Tinto

LOCATION

Western Turner, Western Australia

SERVICES

Rope Access

CAPABILITY

Operations / Shutdown

INDUSTRY

Mining and Resources

Key activities completed

- Removed bird cage attachment beam and wing walls.
- Transported the divertor and lower head chute for refurbishment.
- Refurbished the divertor.
- Fabricated and fitted new parent metal sections.
- Tack-welded the divertor to lower head chute walls and completed full welding.
- Reinstalled Davies liners and repaired cracks.
- Lifted and positioned the lower head chute sections on site.
- Installed RHS and LHS flow sections, bolting into the lower chute and aligning all shims to original positions.
- Reinstalled grizzly wing walls, grizzly velocity chains, and cage beam to restore full structure.
- Completed QA/QC checks throughout removal, refurbishment, and installation to ensure alignment, measurement accuracy, and structural integrity.



Safety initiatives

The Bright Group Superintendent played a key role in maintaining safety and continuity across multiple crews, attending the WT CS2111 work front to review the scope of work with outgoing core crews. Despite being allocated to a TP shutdown at the same time, the Superintendent managed shift handovers, walked the incoming TP DS crew through the scope, isolations, and high-risk activities, and remained onsite to monitor progress. The Superintendent also supported the incoming TP NS crew, ensuring a smooth handover and effective transfer of critical safety information, demonstrating proactive leadership and commitment to zero-harm outcomes.

Points of difference

Using Rope Access enabled the work to be completed on time, eliminating the need for extensive scaffolding along the chute walls and apron feeder discharge.

Seamless leadership handover between crews ensured continuity, safety, and zero harm, demonstrating consistent oversight and effective management under pressure.

We quickly restructured the workforce, coordinated with RTIO leadership, and leveraged Rope Access design to mobilise a crew from Tom Price, enabling repair completion with two days remaining on site.

“Your support during the last shutdown made a significant impact, especially in guiding your teams and setting clear expectations on the critical path.”

Supervisor Plant Shutdown, Rio Tinto