





Unlocking value through in-stope areal coverage support: The Dishaba blast-on mesh success story

20 November 2025

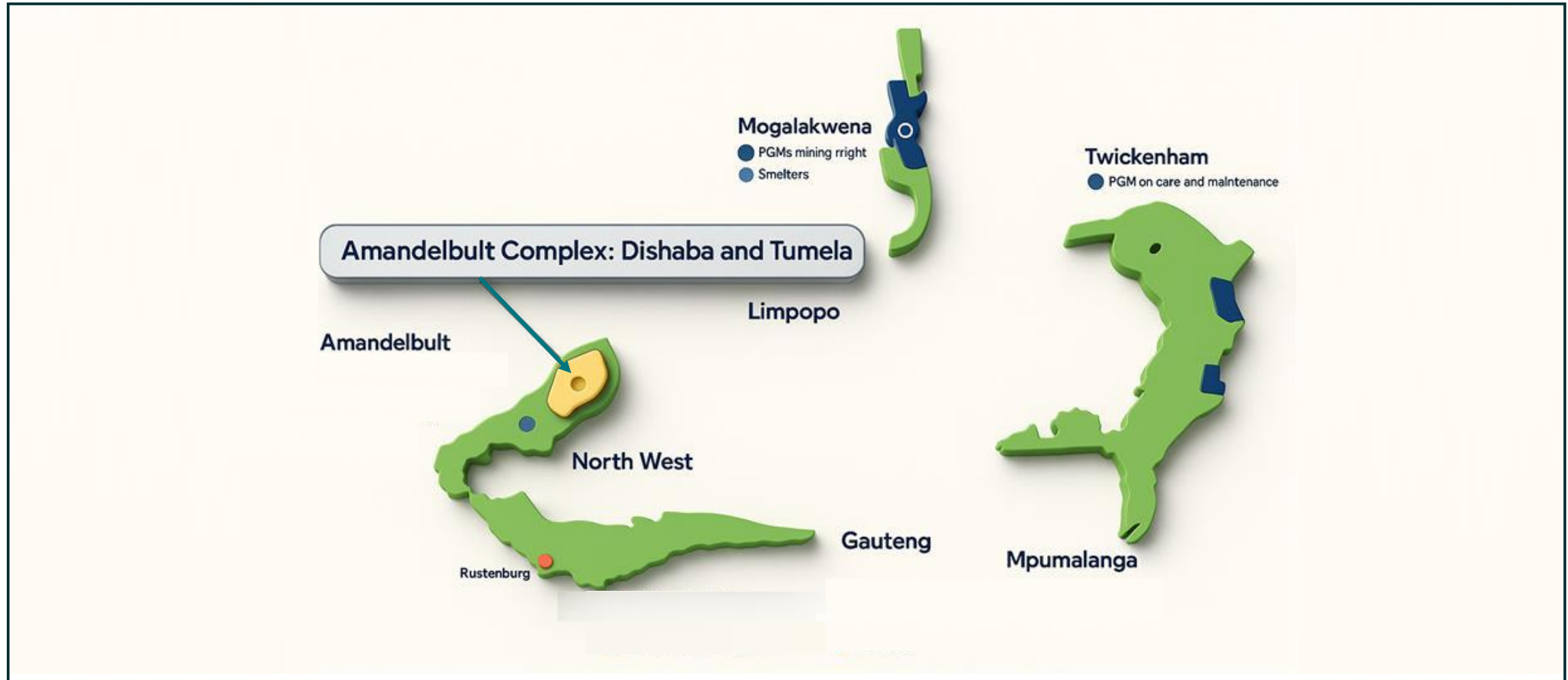
Sifiso Mashile



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Dishaba within Amandelbult Complex



Background: Mining and Geology Environment

Conventional Breast Mining in a Complex Geozone- bounded by Graben and Thrust faults

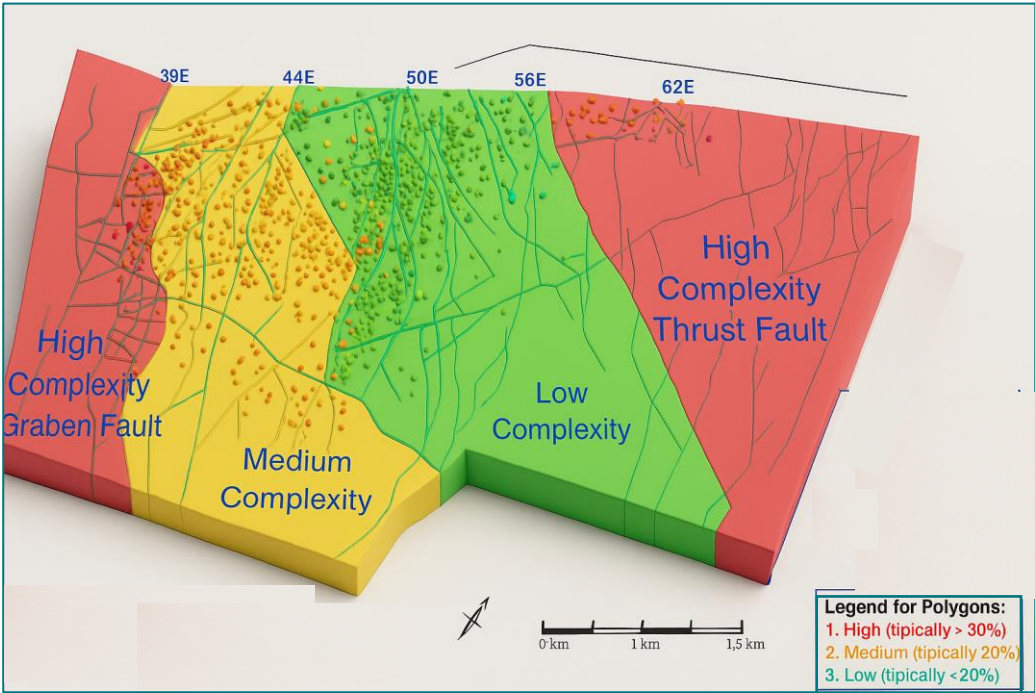
Mining Method



Conv. Breast Layout

Timberless Mining

Geological Setting



Geological Complex

Geotechnical Challenges

Our challenges were not limited to FOG Management but rather across the mining the value chain

Blocky Ground



Falls of Ground Incidents



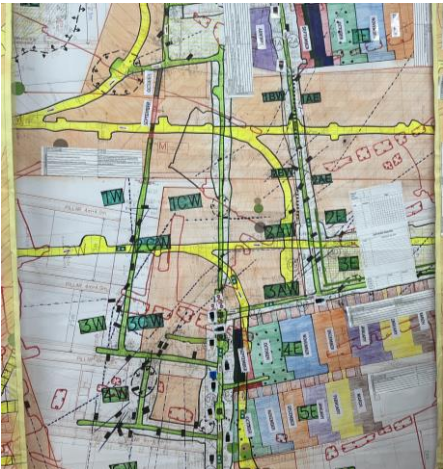
Entry Examination Duration



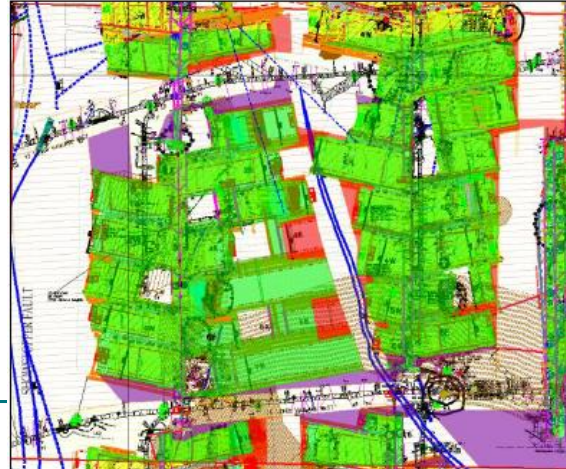
TARP Lost Blasts



Low IMS Panel Ratio



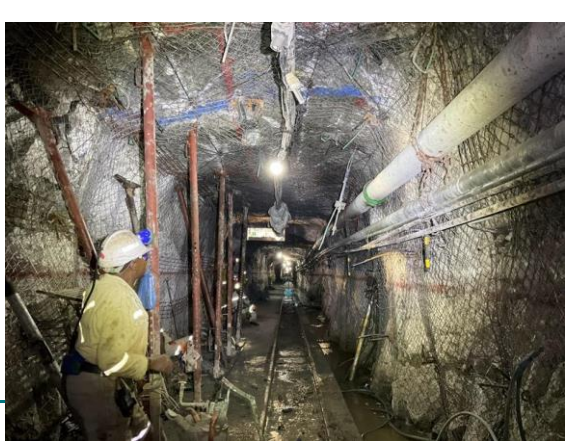
Low Overall Mine Extraction Ratio



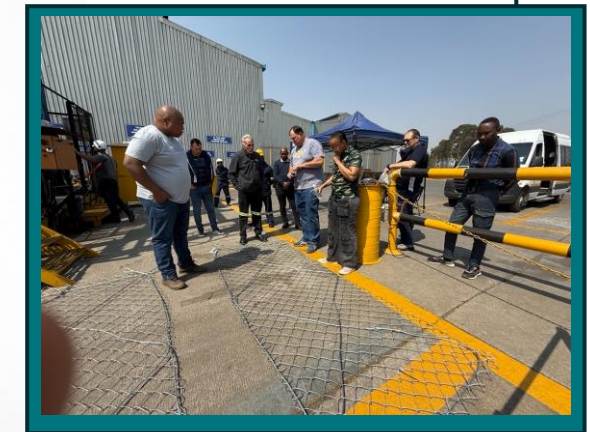
On-reef Secondary Support Costs



Delays in Haulages Secondary Support



Blast-on Mesh Roll-out Strategy: Inception to Execution Journey



Blast-on Mesh Roll-out Strategy: Execution to Fully Rolled-out



- Approved by the **Risk Owner** with full support from unions, SHE, and technical departments.



- Full rollout was achieved in **December 2023**.



- **Continuous Improvement**
- Informed by **underground operational learnings**
- Enhanced through **benchmarking with other mines**

Unlocking Value

FOG Injury Prevention



Safer Night Shift Cleaning



Impact on Early Entry Exam



Easy to handle and install



Review of TARP Triggers



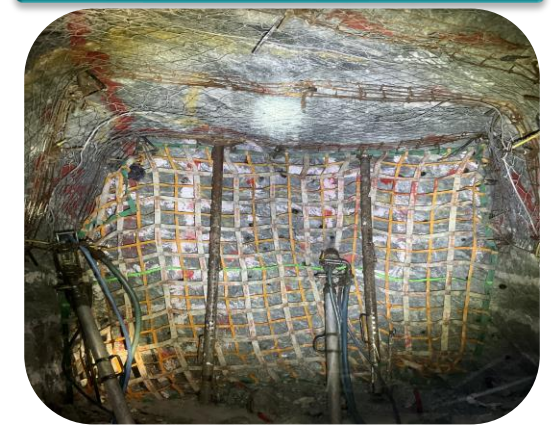
Improved Mining Discipline



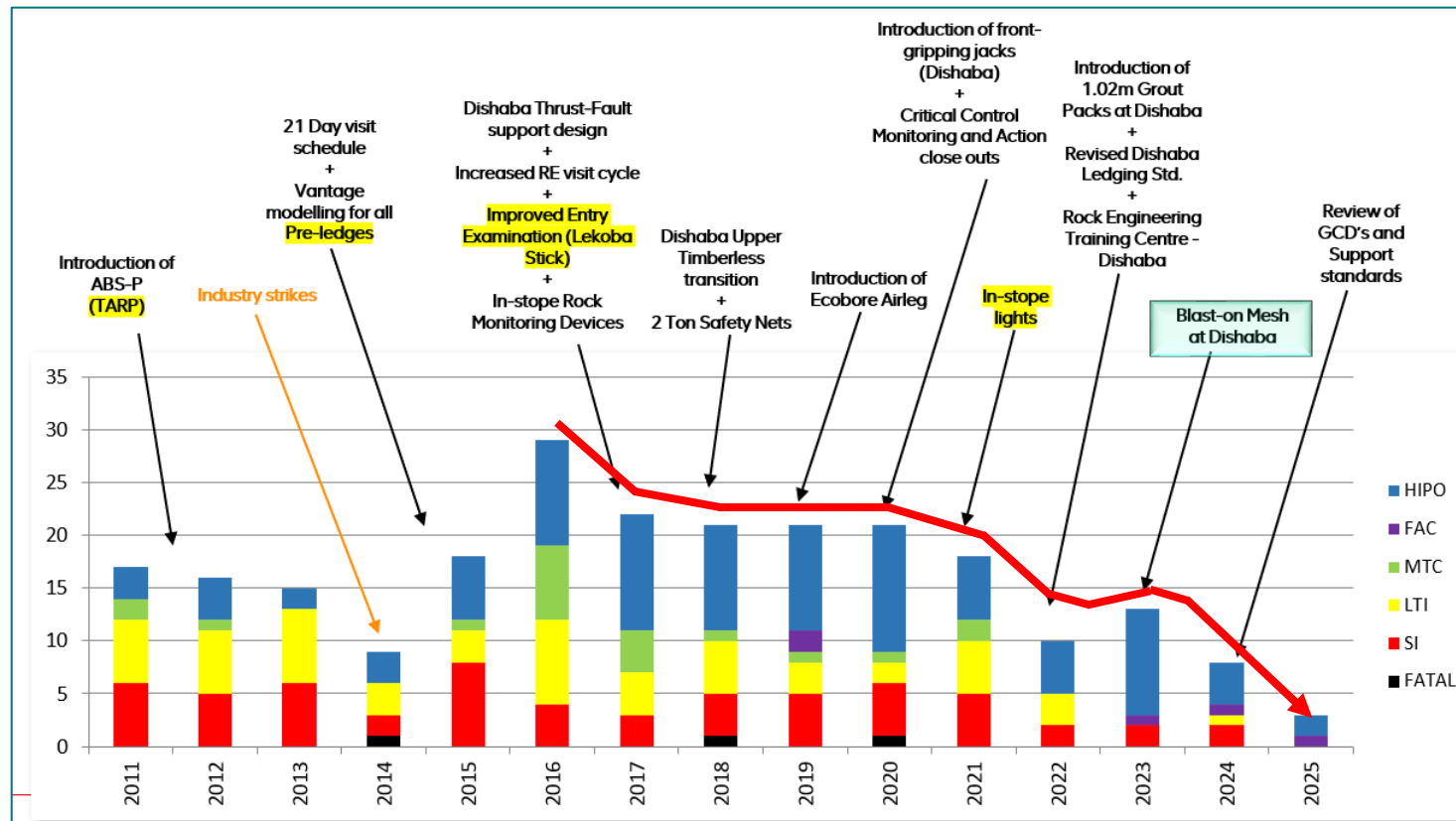
Re-visiting Abandoned Areas



Impact Secondary Support

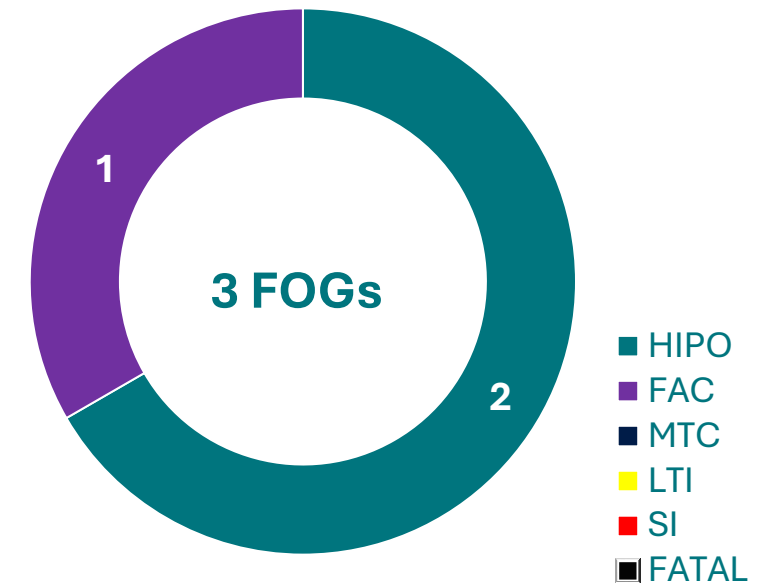


Unlocking Value: FOG Management



169 Days FOG Injury Free

FY2025 FOGs Analysis



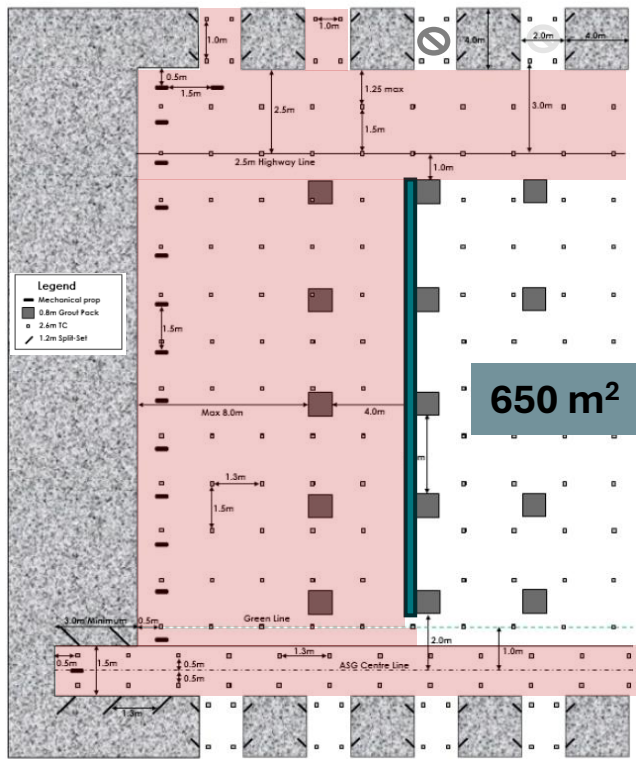
- 1 x FAC
- 2 x HIPOs
 - Haulage Back Area FOG
 - Panel Back Area Collapse

Unlocking Value: Optimised Entry Examination Duration

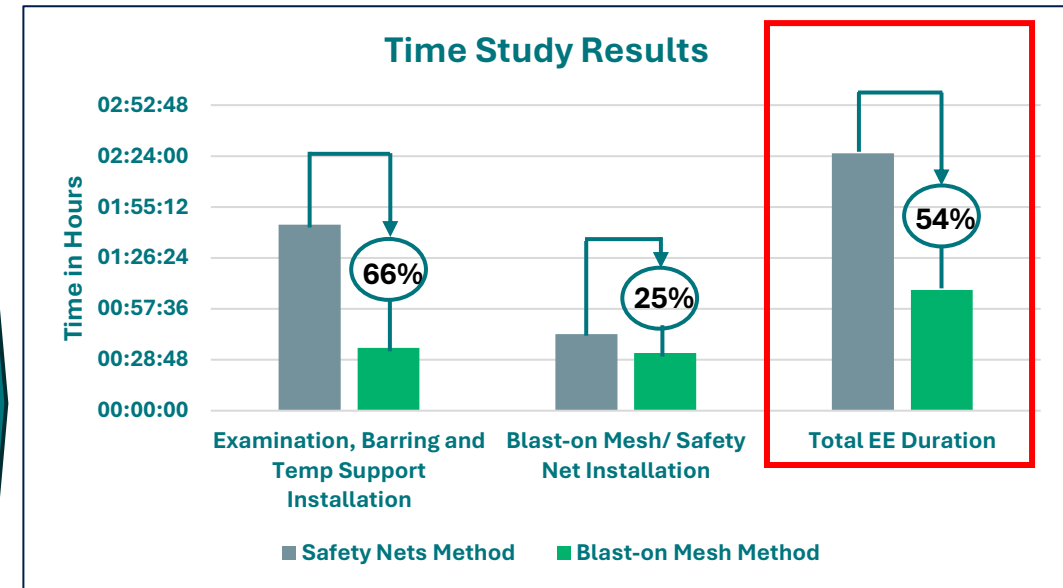
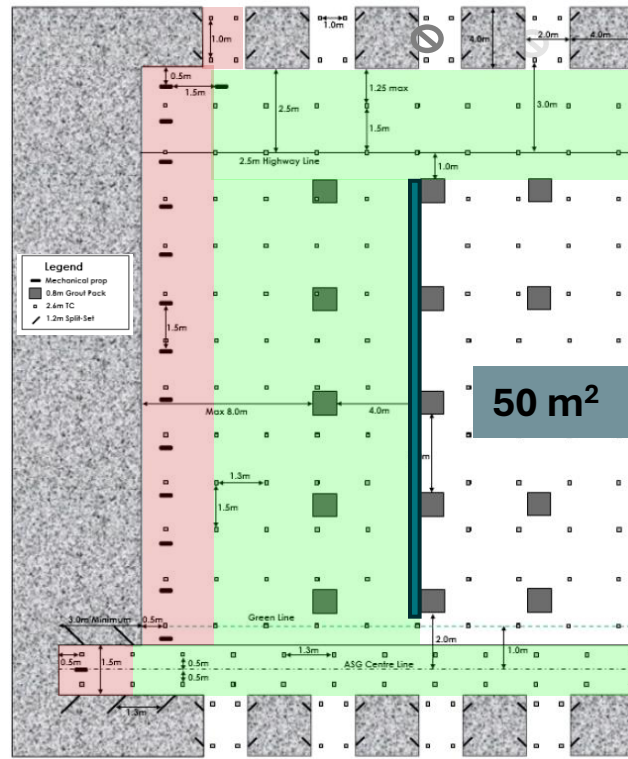
Time Study Results

Time and motion study conducted in 10 panels with an average face length of 25m showed a significant improvement on time spent during Re-Entry Examination.

Before (Safety Nets)



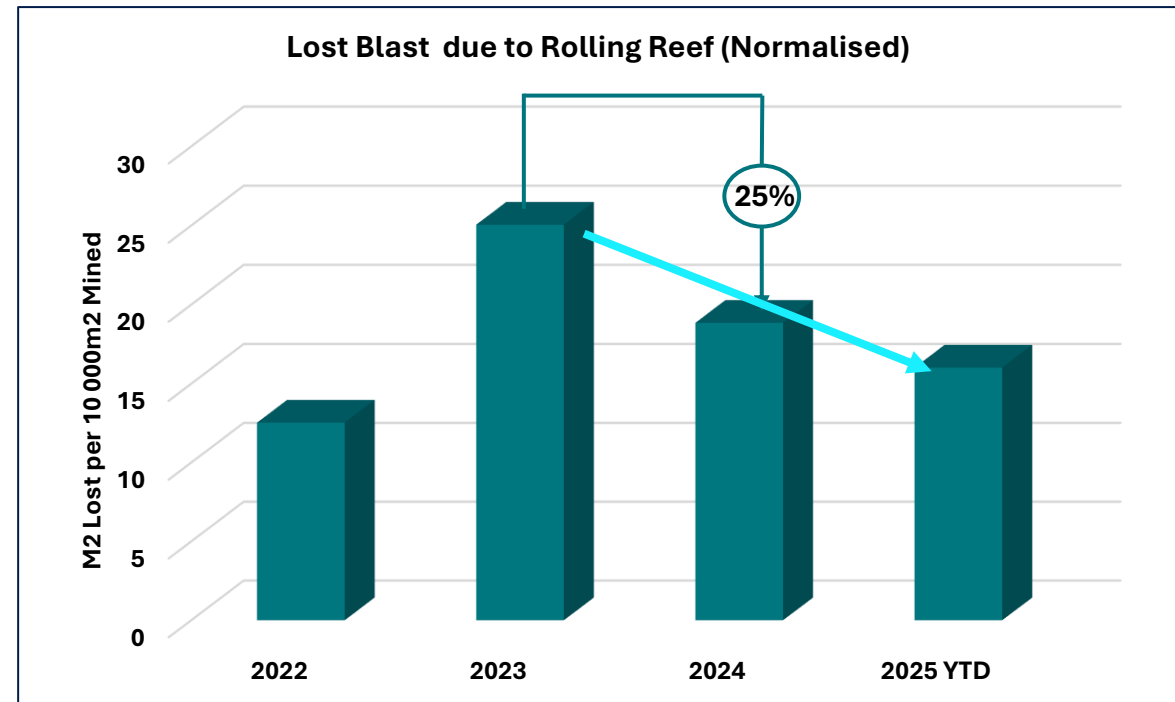
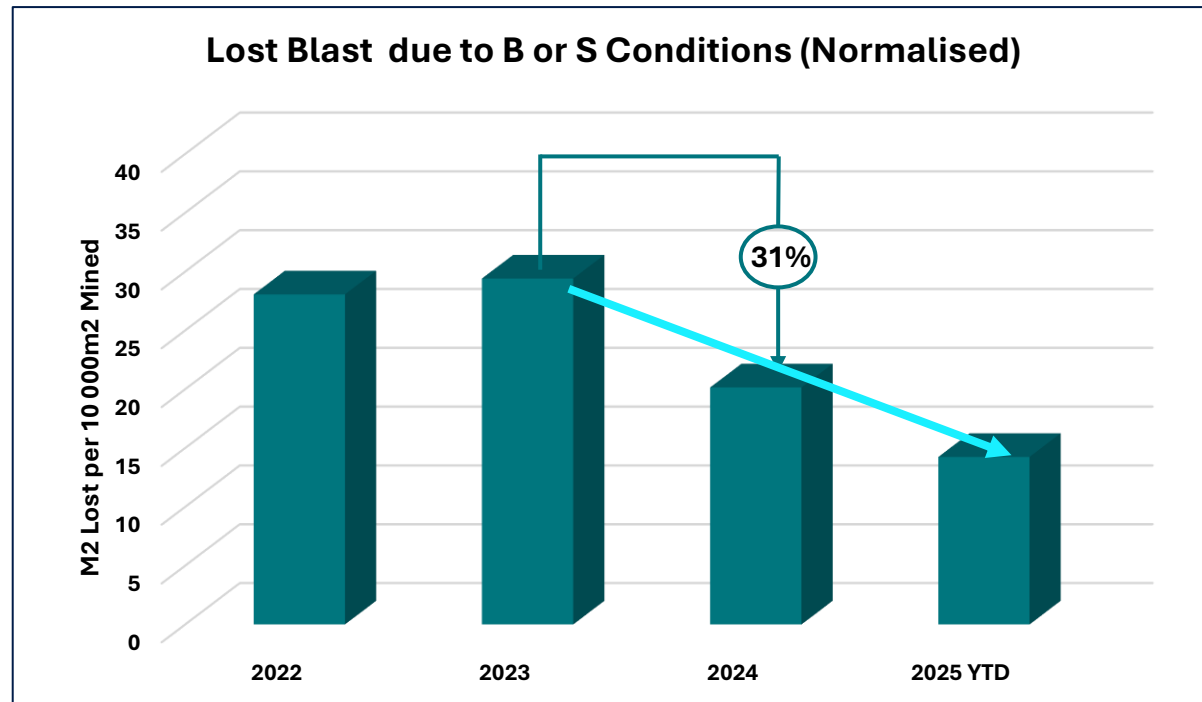
After (Blast-on Mesh)



Unlocking Value : Lost Blasts

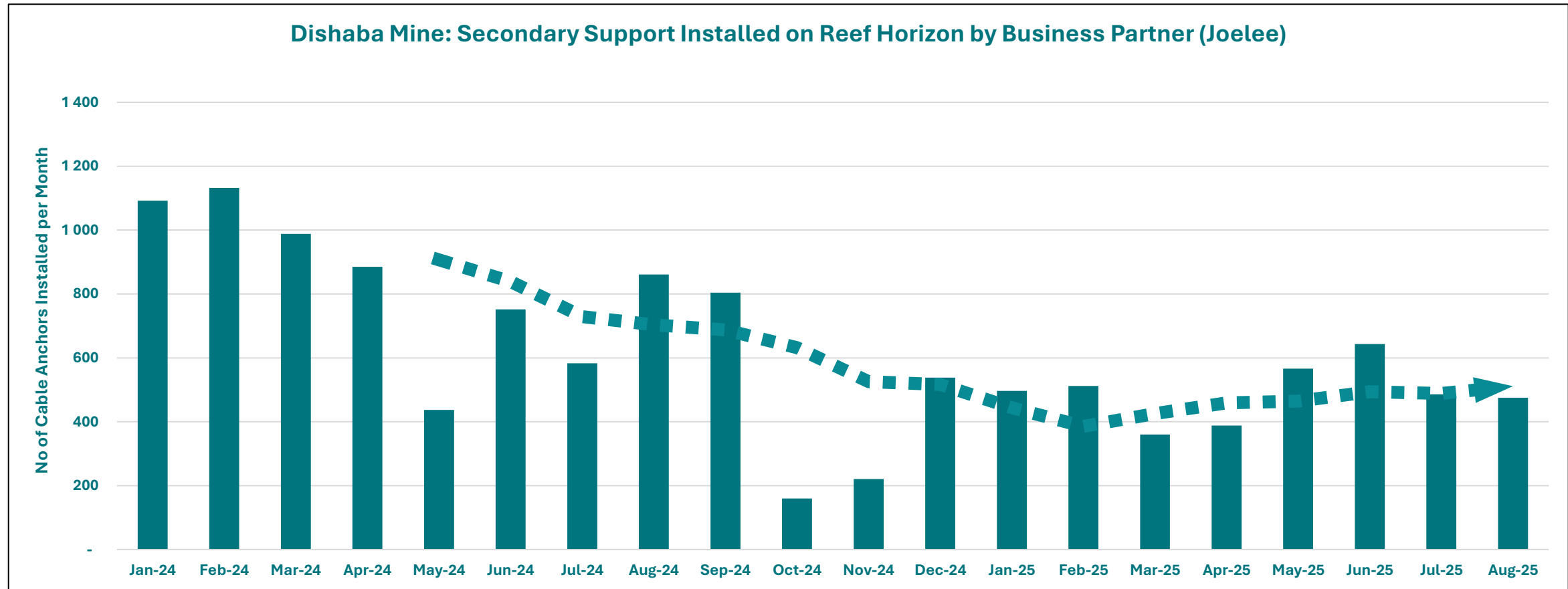
Lost Blast Analysis 2022- 2025 YTD

31% improvement in lost blasts associated with TARP Triggers (B and S Conditions) and a 25% improvement in lost blast associated with rolling reef.



Benefits: Secondary Support- Reef Horizon

Significant reduction on the on-reef secondary support installed by Business Partners.



Challenges and On-going Work

Toe and Gully mesh quality still improving

Valterra PLATINUM BLAST-ON-MESH WORKSHOP | LEARNINGS & CHANGES

Current ASG Mesh



Cable on one side



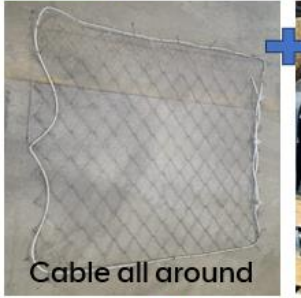

What will change?

→

→

→

New ASG Mesh Design & Stubbies



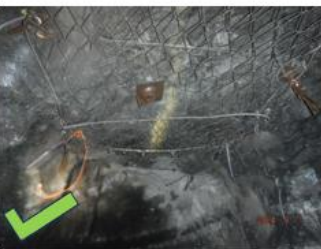
Cable all around



Stubbies



All round blast-on cable minimises mesh scrapper and blast damage



Stubbies prevent blast-on mesh sag




What has changed?

1. ASG blast-on mesh has been re-engineered to include blast-on cable all around.
2. Use stubbies (300mm long x 41mm diameter split set) to ensure the blast-on mesh is installed flush against the hanging wall.
3. Emphasis on Mining to Design (FOG CC4); straight panel face shape, ASG to lead panel face and mined 2.8m high.

What is required from you?

1. Install new ASG mesh together with stubbies as per revised procedure.
2. Maintain ASG lead of at least 3m ahead of the panel face.
3. ASG height to be kept at 2.8m high as per Mine Design.
4. Avoid keeping large accumulations of broken ore (stof) in ASG.
5. Night shift cleaning of panel face area to be synchronised with ASG. cleaning to avoid damaging mesh with scrapper at toe of panel.
6. Connect panel mesh to ASG mesh at the toe using clips
7. Install Greenline support as per Mine Standard

Blast-on Mesh

Recommended Future Work

Support Design Review

Optimise the dip and strike spacing of tendon support?



Back Area Collapse



Back Area Collapse

Will we ever go back ? No

Before blast-on mesh



With blast-on mesh



Our values



Keep it safe

Keep yourself safe

Be your brother's and sister's keeper

Treat people with respect



Own it

Do what you say

Take pride in what you do

Find a better way forward



Stand together

Remove barriers

Unite to achieve great things

Make people feel they belong

Thank you



Any questions?



Acknowledgements

- L van Aswegen- Projects Rock Engineer
- R Gerber- Chief Rock Engineer Amandelbult Complex
- F Bruwer- Manager Geotechnical
- L Prinsloo- Head of Geotechnical
- C Engelbrecht- General Manager Amandelbult

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- Chief Rock Engineer – Valterra Platinum Dishaba
- Health, Safety and Risk Leader
- Committed to Technical Excellence & Efficiency
- Passionate about Mentorship & Skills Transfer
- B- Tech Mining Engineering, Cum Laude (2011)
- Rock Mechanics Certificate (2013)
- SANIRE National Council Vice-President (2025–2027)

