Rio Tinto
Gladstone Aluminium

Yarwun Refinery
Boyne Smelters Limited
Queensland Alumina Limited

Gladstone Aluminium: Inside Operations

Celebrating people, progress and partnership across Boyne, QAL and Yarwun

Welcome to *Inside Operations*, our new community voice for Rio Tinto's Gladstone aluminium operations: Boyne Smelters, Queensland Alumina Limited and Yarwun Refinery.

From the operations GMs:

We're pleased to come together to give you a look at what's happening in Gladstone aluminium, across our three sites and in our community.

Trent: At QAL we're proud of our independence and our 60-year history in Gladstone. We have a culture that's ensured families have stayed with us for generations. And while there will always be healthy competition between our QAL, Boyne and Yarwun operations, what you may not see is how closely we work together.

We value the same things – safety, community, care and jobs for the future. But also, commercially, (and literally, in the case of BSL), we're tied to each other.

Shona: There's been a lot of talk about the future and how we can secure a commercial pathway for manufacturing in Australia. At Boyne, we don't have the full solution yet, but Rio Tinto is working very hard to secure this future for our smelter, as well as for our two refineries: QAL and Yarwun.

This means working with government and industry partners to ensure the jobs and benefits we enjoy today are here for many generations to come.

Shane: At Yarwun last year, Rio made the difficult decision to reduce production by 40% from October 2026. We know this affects people and we're doing everything we can to look at opportunities across our other sites and keep impacts to a minimum.

In the meantime, we're focused on the next 10 years and finding better ways and new technologies to improve our operations. We're proud of the work our teams are doing and you can learn more in this edition of *Inside Operations*.

Stay safe,

Shona Markham; Trent Scherer; Shane Wembridge

Yarwun welcomes GM Shane Wembridge

In September 2025, Yarwun welcomed new General Manager, Shane Wembridge, who moved from Boyne Smelters into the role.

Shane replaced Mark Gilmore who, after 7 years as Yarwun GM, moved into a new Gladstone leadership role.

Inside industry

Rio Tinto's Gladstone operations are part of Australia's largest vertically integrated aluminium supply chain. We use Australian bauxite mined in Weipa and Gove to manufacture aluminium by first refining it into alumina at QAL and Yarwun refineries then smelting that alumina into aluminium at Boyne Smelters.

Aluminium is lightweight, recyclable, and has many uses. You'll find it in households, in window frames, door frames and electronics. It helps us get places in aeroplanes and cars, as well as generating power in transmission lines and solar panels.

Global demand for aluminium is growing

While markets are volatile and prices of bauxite, alumina and aluminium all fluctuate, it is expected that by 2050, global demand for aluminium will nearly double.

While an increasing proportion will be met through recycled aluminium, the world will still need increased production of primary aluminium, including bauxite mining and alumina refining.

Customer fact:

A large proportion of aluminium produced at Boyne is sold to customers in Australia and used in the construction and transport industries. Boyne aluminium was used in the new Queens Wharf development in Brisbane.

Production facts:

Gladstone produces:

~4%
of global alumina.

0.69%
of global primary aluminium.

Rio Tinto's 3 Australian smelters account for

~1.7%
of global primary aluminium production.

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Community Giving Program

Rio Tinto's Gladstone operations — Yarwun Alumina Refinery, Boyne Smelters Limited (BSL) and Queensland Alumina Limited (QAL) invite local community and not-for-profit organisations to apply for support through the 2026 Community Giving Program.

For more than 60 years, our operations have proudly supported initiatives that enhance liveability, strengthen community connection and contribute to a vibrant Gladstone region.

Community groups are encouraged to apply for financial or in-kind support for projects delivered between April and September 2026.

Scan the QR for more information.

Inside Yarwun

Rio Tinto recently announced it would reduce production at Yarwun by 40% from October 2026 to keep future options open for the refinery.

With many questions about what this means for our people and the community. Yarwun GM, Shane Wembridge gives us some answers...

What does this news mean for jobs?

"About 75% of Yarwun jobs remain as unaffected, but the curtailment will impact 182 roles.

"Based on vacancy and turnover rates, we are confident we can find roles for operators and maintainers - whether that's remaining at Yarwun or at our other Gladstone sites: Boyne Smelters and QAL.

"For all other roles, we will work with individuals to look at opportunities locally and more broadly across Rio Tinto."

Why isn't Rio investing back into Yarwun and supporting the construction of a second red mud dam?

"While we've extensively explored options to develop a second facility over a number of years, the scale of investment required is substantial and is not currently economically viable. Reducing production extends the life of our current red mud storage facility (RMA1), and the refinery."

Will Yarwun employees have a say on what's going on?

"Yes, this is a year-long process and we'll be consulting extensively with our people. Most recently, Yarwun has been consulting employees on the change and listening to thoughts, ideas and suggestions on the future shape of Yarwun."

Will Yarwun close in 2035? Will Yarwun ever return to full production?

"No decisions have been made about the future of Yarwun beyond 2035. We are taking time to work through alternative technical solutions to manage red mud and continuously improve how we operate. Putting the curtailed section of our refinery into care and maintenance gives us flexibility should we return to full production in the future."

What about the impact on our suppliers?

"There will be no material impacts on our supply arrangements until October 2026. Yarwun remains at full production until then and we remain in discussions with our suppliers to help them plan ahead."

Consultation milestones

When	What
Q4 25 (Nov)	• Curtailment announced
Q1 26	**Employee consultation** • Discuss proposed changes and answer Q's • Listen to employees' thoughts, ideas and suggestions
Q2 26	**1:1 Employee discussions** • Confirm employee preferences, discuss individual circumstances, discuss next steps
Q2 26	**Communicate final decision on proposed changes**
Q3 26 (Jun, Jul)	**Employee selection period** • Leaders apply selection criteria to identify future Yarwun employees and develop transition plans
Q3 26 (Aug)	**1:1 Employee discussions** • Confirm outcomes, discuss next steps and future career interests
Q3 26 (Oct)	**Curtailment commences**
Q3 26- Q1 27	**Redeployment** • Redeployment planning and execution with impacted employees

Ask us anything:

If you have a question about this or any other aspect of our business, get in touch. We may not have all the answers, but we'll do our best.

Contact us:

Phone: 1800 226 258 (Yarwun)

Email: OneGladstone@riotinto.com

Visit: www.riotinto.com

Follow: Rio Tinto Gladstone | Facebook

Inside QAL

This year, we're focused on safely and responsibly executing our plan.

This means processing around 10 million tonnes of bauxite into 3.6 million tonnes of alumina without hurting any of our people, impacting on the local environment, or damaging our plant.

One way we're doing this is by rethinking some of our toughest, most hands on jobs. A standout example is our newly automated Kelly Filter Press washdown system, recently recognised as Invention of the Year at the 2025 WorkSafe WA Health and Safety Excellence Awards.

QAL Technical Services Manager, Mark Veach, explains:

"Working alongside our partners Innovative Mining Services, our people helped redesign the washdown of our 58 year-old Kelly Filter Presses.

"These presses play a critical role in separating alumina rich liquor from red mud and other impurities.

"What was once a physically demanding job involving manual, high pressure hosing of hot liquor from elevated platforms is now a fully enclosed, remotely operated process.

"The result is safer, more consistent work that reflects the kind of progressive refinery environment we want our people to be part of.

"Five presses will be automated, with a further 46 planned once additional funding has been secured."

Did you know?

While the process is fundamentally the same, QAL and Yarwun use different types of filter presses. Scan the QR code to see QAL's new system in action!

Working with us

QAL, BSL and Yarwun all run apprentice and trainee programs, providing entry-level opportunities and a career pipeline for stable, skilled work for operators, trades and other professionals. QAL recruits entry level operators, trades, graduates and cadets. With its 2026 cohort of apprentices now on site, Theunis Meinie, Manager of Human Resources, gave **an insight into what QAL is looking for in a new recruit**.

"We're looking for a range of people with diverse mindsets and backgrounds. But there are some traits that we're consistently looking for:

"We want people who are: work ready, organised, determined and detail-oriented. Overall, top candidates show up ready to work with responsible behaviour and a good work ethic. They have a positive attitude and understand, whether it's safety or quality: detail matters."

Inside Boyne Smelters

Boyne is Australia's second-largest smelter and uses 10% of Queensland's electricity to reach and sustain the very high temperatures needed to smelt aluminium.

BSL's energy comes from Gladstone Power Station – a coal fired power station – and the smelter's energy contract is due to expire in 2029.

It's no secret BSL and Rio Tinto teams are working to lock in the final arrangements to repower the smelter with renewables. If successful, this would make Boyne the world's first smelter driven by solar and wind.

So far, we've secured 2.7GW in renewable energy agreements, or around 80% of the total energy required to repower BSL.

Many people ask, **why not just keep using coal?**

Shona Markham explains why standing still isn't an option.

"I get this question all the time, from employees and community. In fact, it's the number one myth out there about the future of Boyne Smelters."

"The reality is coal-fired power is no longer commercially viable for Boyne Smelters. Energy is our single biggest cost input, and staying where we are isn't an option. If the smelter is to have a long-term future, we need to transition to more affordable, reliable renewable energy."

"Transitioning to renewable energy isn't about change for change's sake – it's about protecting jobs and keeping Boyne Smelters operating for decades to come."

Practical problem solving at Boyne

At Boyne Smelters, our teams are working to make everyday jobs safer and more efficient.

One way we're doing this is by using a method called ***Practical Problem Solving***. PPS helps teams look closely at day to day issues, find the root cause, and work together to create safe, sustainable solutions that eliminate the problem.

Andrea Blundell, Principal Business Improvement, says the PPS toolkit is helping people solve problems, not just manage them.

"Time is built into our weekly routines so teams can focus on solving problems and improving the way we work."

"So far, **65 employees** across Boyne have been trained as PPS facilitators."

"They help guide problem solving sessions and share what they learn with others. A dashboard also tracks the problems being worked on across the site, helping teams learn from each other and build better, safer ways of working."

Inside projects

Yarwun is getting on with the job of reducing emissions in its business with a world-first project aiming to produce alumina using hydrogen in place of natural gas.

Project lead, Tash Penno gives us the run down:

What's the world first?

"We will be making alumina using hydrogen in place of natural gas in the calcination process – calcination with no CO2 emissions which is a world first."

Why does it matter?

"It shows the real-world potential of hydrogen to transform industrial processes and reduce emissions at scale.

"It's still early days for green hydrogen in Australia, but if we applied this technology at full scale at Yarwun, green hydrogen could reduce emissions by up to 500,000 tonnes per year - the equivalent of removing about 109,000 internal combustion engine vehicles from the road."

Who's invested in it?

"Sumitomo Corporation, ARENA and Rio Tinto have all put money and effort into the project - we've been working on it for a few years now, so it's great to get to this stage!"

What does it look like?

"A 2.5 MW on-site electrolyser - owned and operated by Sumitomo Corporation – which supplies hydrogen to storage vessels at Yarwun. One of the refinery's four calciners has also been retrofitted to operate with hydrogen burners. At the end of each 2-hour trial run, the electrolyser will resume filling the storage vessels and the calciner returns to natural gas operation until storage is full."