Smart investments lay foundation for healthy future

Lady Loretta ramping up production
Black Rock Cave development begins
EHM celebrates 10 years underground
Copper Smelter re-brick success
From the COOs

The nature of the natural resources sector is that it is cyclical. As a business our primary objectives over the past years have been to produce commodities the world needs safely and responsibly, and make smart business decisions to insulate the business against the cyclical shifts of the sector, so we can continue to operate profitably.

This, in turn, ensures we remain a major contributor to the state and national economies, and continue to invest and have a positive impact in the communities in which we live and work.

As we look back on the first half of 2018, we recognise the significant investments that have been made into our people and assets across north Queensland. We’re optimistic about the next few years for the region.

The recommencement of mining operations at Lady Loretta this year was matched by significant refurbishment and upgrades to the Zinc Lead Processing facilities in Mount Isa, ensuring we have appropriate capacity to maximise the opportunities we see in the recovery of global zinc prices.

Mining operations in Mount Isa are also evolving with an eye on the future, with the establishment of the Black Rock Cave project. Using the innovative sub-level caving method – a technique we’ve perfected at Ernest Henry Mining over the past five years – we will be able to access parts of our existing copper resources more economically, and potentially revisit ore bodies that couldn’t be extracted economically in the past.

We also completed a $30 million dollar Copper Smelter shut-down and re-brick during March and April, ensuring we maintain advanced metals processing capability in Mount Isa and Townsville out to 2022, under Mount Isa Mines’ Environmental Authority.

Looking beyond the immediate impacts these investments have on our operations, they also ensure we’re well placed when it comes time to make decisions regarding our operations over the next few years.

While investments into our operational assets ensure we remain commercially competitive, commitment to ongoing investment in the safety and wellbeing of our most important asset, our people, remains top of mind.

A number of reviews around Safety Culture, Work/Life Balance, and the ways in which we can contribute to the liveability of our region are underway across our operations, and we look forward to seeing the fruits of this body of work over the coming months.

We would like to thank you for your support during this period of investment, and look forward to seeing some great outcomes for our people, and broader community, throughout the rest of the year.
In March and April, Mount Isa Mines successfully completed a 38-day, $30 million Copper Smelter re-brick project on time and on budget, reinforcing our commitment to minerals processing operations in Mount Isa.

Approximately 700 people were engaged on the shutdown, including 230 Glencore employees and nearly 500 local and regional contractors.

The shutdown included a number of major maintenance projects including laying 2,500 tonnes of refractory bricks in the ISASMELT™ furnace, an anode furnace, and two rotary holding furnaces.

The refractory bricks form part of our furnaces which operate at 1,300 degrees Celsius. Over time, the heat erodes the bricks and they need to be replaced. The smelting process also leaves residual deposits throughout parts of the smelter, which impact on the flow of hot gasses and materials through the smelting process.

Richard Harvey, Chief Processing Officer North Queensland Copper Operations says the shutdown’s success was testament to the dedicated team who had been planning the project for months.

“With a large scale project like this, planning is critical to ensure the safety of our people and the successful completion of the multi-million dollar project,” Richard says.

“Our re-brick was completed safely, on budget and on schedule and will enable our smelting operations in Mount Isa to continue.

“Our investment in this re-brick is a positive demonstration of our confidence in advanced metals processing in Mount Isa.

“While we can’t predict future market conditions, we will maintain our metallurgical assets as long as they remain economically viable.”
Lady Loretta Mine lies 140 kilometres north west of Mount Isa, producing a zinc lead ore for Mount Isa Mines’ processing facilities.

Glencore’s Lady Loretta Mine (LLM), operated by RedPath Australia, is now ramping up toward full production after recommissioning during the first half of 2018 following two years in care and maintenance.

Redpath Mining was awarded the LLM operating contract for the remaining life of the mine, and took control of the site on 1 March this year. Development work began at LLM on 6 March, with the first ore trucked to Mount Isa Mines processing facilities ahead of schedule on 24 April.

Glencore staff from the LLM Owner’s Team and George Fisher Mine were involved heavily in the recommissioning period, working closely with the Redpath workforce and providing extensive site-specific knowledge to get LLM operational safely and on schedule.

Rory Burke, General Manager Metalliferous for Redpath Australia says that the site had been well cared for by Glencore staff during the closure, which was a significant advantage when it came to recommissioning.

“The high quality of care and maintenance by Glencore meant we could walk in and get development started virtually straight away,” Rory says.

“Key targets in getting production underway were met ahead of schedule, which is a great achievement from the workforce, and a reflection on the professionalism and commitment they’ve shown to the project.”

Marcus Doyle, Manager LLM Owner’s Team says the transition from care and maintenance to production is complex, but was completed smoothly.
In April, the first ore from the recently restarted Lady Loretta Mine (LLM) was processed at the Mount Isa Mines (MIM) Zinc Lead Concentrator.

To provide the capacity required to process the new stream of LLM ore, the Lead Processing team has restarted sections of the processing circuit that closed for a series of refurbishments half-way through last year.

Ball Mill BM04 was placed into care and maintenance in mid-2017 and since then has been refurbished with a full reline, replacement of both motors and upgraded feed conveyor. BM04 is used to grind the ore down to a fine powder, slightly coarser than talcum powder. This finely ground ore is frothed with reagents to separate mineral content from the waste rock.

During the shutdown periods, an opportunity was identified to repurpose parts of the processing circuit and following successful trials, these parts are now providing improved flotation performance, leading to better metal recovery.

Clint Savage, Manager Technical Services says these modifications, completed in June, were a part of a series of innovations employed by the Zinc Processing team.

“Improvements continue to be identified such as the recent conversion of steel liners to composite rubber/steel liners in the SAG mill for reduced power and increased life of mill components,” Clint says.

“The LLM readiness project has been made possible through a successful collaboration across the Zinc Processing department.”

Zinc concentrate from Mount Isa is sold to customers around the world, and exported through Glencore’s Port Operations in Townsville.

Lead is smelted in Mount Isa into four tonne bullion blocks, transported to Townsville and shipped to Glencore’s lead refinery in the United Kingdom.
Ernest Henry Mining underground turns 10

Ernest Henry Mining (EHM) is celebrating 10 years of underground mining in 2018 with another year of record production and ongoing commitment to safety and continuous improvement at the operation.

The Ernest Henry ore body was discovered in 1991, and EHM was established in 1997 as an open-cut copper mining operation, extracting ore for processing an on-site concentrator, smelting at the Mount Isa Mines copper smelter, and refinery into copper cathode at the Townsville Copper Refinery.

While open-pit mining is usually a comparatively economical mining method, it becomes significantly more expensive as the mine gets deeper due to the large masses of waste rock that need to be removed to keep the pit structure stable.

In 2007 the decision was made to investigate the feasibility of extending mining operations through a conversion to underground methods beyond the scheduled 2011 Life of Mine.

A $589 million investment was approved, and a three-year underground development program began in February 2008.

When open-pit operations ended in 2011, production moved underground. Ore was trucked to the surface during construction of a one-kilometre deep shaft and hoisting system to the new underground mining complex.

The 75-metre high headframe houses the hoisting system at the top of the shaft, able to hoist around 1,000 tonnes of ore per hour.

The completion of the shaft and hoisting system enabled a step change in production rates from 3 million tonnes per annum achieved by trucking ore, to a budgeted 6.8 million tonnes per annum in our tenth year of operation.

Annual metal production has also significantly increased to more than 70,000 tonnes of copper and 100,000 ounces of gold in concentrate in 2017.

EHM is one of comparatively few mining operations globally that use advanced sub-level caving to extract the ore. Requiring specific ore body characteristics, sub-level caving works by letting waste rock around the ore body crumble into the spaces left by mining, leaving no open voids in the rock and removing the need for expensive back-filling operations to maintain geotechnical stability.

Aaron Harrison Mine Manager EHM explains why it is important to recognise this milestone.

“It is a great honour to be the underground manager in this milestone year and now is the perfect time to recognise the continued improvement of the underground operations over recent years,” Aaron says.

“Productions output have been increasing year on year and we continue to meet the high expectations that we place on ourselves. The continued success of the underground mine can be attributed to the strong teamwork between all underground crews and departments, so I’d like to thank all the people at EHM for their contribution.

“It is this teamwork and collaboration that will ensure the sustainability of EHM into the future and I can’t wait to see what we are capable of achieving.”
Fast Facts

Location: 38 kilometres north east of Cloncurry in north-west Queensland
Annual production capacity: 6.8 million tonnes
Employees: 350 including contractors
First cut of the Underground mine: 20 February 2008
Length of conveyors: 1.2 kilometres
Underground ore reserve (2017): 51.4 million tonnes at 1.08% copper and 0.55 grams per tonne gold

SINCE FEBRUARY 2008
- 14 million tonnes of ore trucked
- 16 million tonnes of ore has been hoisted
- 30 million tonnes of ore mined from underground
- 72 kilometres of underground development tunnels

Kayla Stephens, Loader Operator at Ernest Henry Mining
Five Sandvik LH621 loaders have arrived at Ernest Henry Mining (EHM) early this year and commenced work in the mine.

“These loaders will replace a number of older Caterpillar machines that have reached the end of their life cycle,” Aaron Harrison, Mine Manager EHM says.

EHM has had another two 621s working in its 12-strong underground loader fleet since 2015 and they have more than proven their $1.67 million value in that time.

“With a bucket capacity of 21 tonnes, the 621s can carry more material and better support our current Life of Mine production profile of 6.8 million tonnes per annum,” Aaron says.

“We are extremely proud to have been able to increase our production rates to current levels from the initial 6 mtpa following shaft commissioning in 2014 and we hope to make further gains as we continue to grow our experience and improve our operating processes.”

Neville Gishford, who has worked as a Loader Operator at EHM for four years and has more than 30 years of experience on ‘boggies’ (as they are known by operators), welcomes the arrival of the new machines.

“They’re great to operate because the power’s right there and you can move the dirt faster and shift bigger rocks without any holdups,” Neville says.

“They have a lot more electronics and allow you to set up some of the specifics on how you want to operate the machine in terms of the braking and transmission, so they give us more choice individually as operators.”

As part of the purchase, Sandvik is conducting training for our Operator and Maintenance teams to refresh and refine their knowledge of the loaders.

“The 621s are more advanced in terms of electrics but it means you can test for more faults on the job from inside the cab,” Diesel Fitter Jeremy Graham says.

“The training helps us to improve our diagnosis techniques and build our confidence so we don’t have to rely on the Auto Electricians as much.”

Three of five new LH621 loaders have already been delivered and put to work underground at EHM.
In May, Mount Isa Copper Operations hosted representatives from Mount Isa City Council and the Department of Natural Resources, Mines and Energy on site to mark the beginning of development of the Black Rock Cave project.

Mount Isa Mayor Joyce McCulloch was invited to detonate the first cut of the decline that will service the operation.

The project will operate parallel to existing copper mining operations at Mount Isa Mines, using sub-level caving to economically extract ore from the Black Rock ore body.

To be effective, sub-level caving requires an ore body with specific size, shape and fragmentation characteristics. Ore is extracted in a carefully designed and highly efficient pattern, using loaders and vertical ore passes to transfer ore to haulage levels at the bottom of the mine.

As the ore is extracted, the surrounding rock fragments and caves in to fill the void, eliminating the need to backfill large open voids left by the more common sub-level open stope mining.

Glencore’s Ernest Henry Mining, located 120 kilometres east of Mount Isa near Cloncurry, successfully converted from open-pit operations to sub-level cave mining in 2011.

The Black Rock Cave project will achieve its first production ore in 2020, and provide additional ore into the Mount Isa Copper Operations profile in parallel to existing mining activities out to 2023.

Matt O’Neill, Chief Operating Officer North Queensland Copper Assets says developing the sub-level cave complements the recent $30 million investment in re-bricking the Copper Smelter at Mount Isa Mines.

“Our recent investments in the Smelter re-bricking and the development of the Black Rock orebody highlight Glencore’s confidence in the operation here in Mount Isa,” Mr O’Neill says.

“The addition of Black Rock ore to our processing stream ensures we will be well placed when it comes time to make decisions about our future operations.”

PYBAR Mining Services was awarded the development contract, and has employed about 40 people to prepare the underground decline and develop mining levels during the construction phase of the project, before it transitions to steady-state production in 2020.
Civil Engineer Stephanie Sherritt has scripted her own path into the mining industry.

With an insatiable appetite for site-based engineering experience, determination, persistence, and a belief that opportunity doesn’t knock but presents itself when you beat down the door, Civil Engineer Stephanie Sherritt has found her own way into the mining industry.

You can tell from Stephanie’s unmistakable accent that she grew up in Canada. Living near the Rocky Mountains in Calgary for the first six years of her life, she moved to Brisbane in primary school. Brisbane provided her with exposure and opportunity to cultivate her engineering passion.

During school holidays in high school Stephanie attended science and physics camps at the University of Queensland. “It’s important for students to understand what jobs they can do with science and maths. Once I saw what was available I solidified what I could do with engineering,” Stephanie says.

“At high school I had a physics teacher who encouraged me in this direction. One school excursion was to Dreamworld where we tested Newton’s Second Law of motion, by wearing accelerometers on the Giant Drop.”

“The benefit comes from getting kids into Science, Technology, Engineering and Maths (STEM) early and showing them what STEM has to offer. It’s not all about guys in lab coats and there are real world applications for maths and physics.”

The real work came during university where Stephanie undertook vacation placements working on construction of a new wing of Brisbane’s Wesley Hospital. Stephanie’s first taste of Mount Isa Mines (MIM) came in 2014, working for engineering firm Parsons Brinckerhoff, where she was contracted to MIM to undertake data collection.

“My job was to travel the 52 kilometre long mining lease from south to north verifying storm water plans with the actual infrastructure in place as part of the water project.

“The Transitional Environment Program (TEP) had been approved; however, the design work couldn’t proceed until the drawings had been verified. My role was to ground-truth the maps, by trekking from the southern end of X41 to the northern end of George Fisher Mine. I gained valuable knowledge of the MIM site during this project.”

The task was completed all too quickly and Stephanie returned to Brisbane where she found herself yearning for field work again. Despite a group of older colleagues encouraging her to stay in the city, she was determined to keep knocking on doors to find a way to get back into the field.

“I was continually expressing the desire for more field experience. I was telling anyone I could find that I wanted the opportunity, until I found someone who was going to help me achieve it.

“When I kept asking, things I never thought could possibly come my way, would just keep coming.”

As you would imagine, she jumped at the opportunity when a consultancy position became available with Parsons Brinckerhoff as Project Engineer for MIM’s $49 million Water Project, transitioning MIM’s almost century-old mine site to compliance with new conditions under the Water Transitional Environmental Program (TEP).

The completion of this project in 2016 was a major milestone for the team, after five years of intensive environmental improvement works, 104 water structures including 49 new containment structures including ponds, dams and a block wall were constructed, with 26 kilometres of new pipeline installed on site.

Stephanie took a step closer to a career ‘in the field’ while in Mount Isa, leaving Parsons Brinckerhoff and taking a fixed-term contract with MIM’s Environment team for the remainder of the Water Project.

In 2017 Stephanie came on board with MIM permanently as a Civil Engineer with the Zinc Processing team, working on structural and civil engineering projects.

“Currently I am undertaking structural refurbishment projects at both the Lead Smelter and the Lead Zinc Concentrator. We have nearly completed the replacement of a section of the top floor of the Sinter Plant which, made of concrete and at height, is a challenge.”

“Other projects that I’m working on are focused on improving health and hygiene in the plant. We’ve been working on the Zinc Filter Plant hygiene project to seal the area with a concrete slab and other projects in the concentrator to install better drainage, with the goal of reducing the amount of dust and spillage in the work areas.”

“These sorts of projects are what I particularly like about being a project engineer because I have the opportunity to solve problems, and put new technology and new products to the test, but I also love working in teams.”

Stephanie’s persistence in searching for field experience has paid off for her time and time again. She’s learned that with determination, hard work, not taking ‘no’ for an answer and her passion for engineering, doors continue to be opened in the mining industry.
“The benefit comes from getting kids into STEM early and showing them what STEM has to offer. It’s not all about guys in lab coats.”

– Stephanie Sherritt
In-house innovation improves safety at Mount Isa Lead Smelter

Zinc Processing Engineers have designed and installed a new modular conveyor bridge at the Lead Smelter, improving safety for installation teams and processing operators into the future.

During an annual structural inspection by the Engineering team on the Lead Smelter, the C3 conveyor bridge was identified as showing signs of wear and tear and replacement planning began.

C3 Conveyor carries fluxes, coke and sinter into the feed prep storage bins.

The engineering team developed a modular design to make installation easier and safer in the challenging work environments around the Lead Smelter complex.

Improvements to basic safety conveyor bridge features, including higher kick plates and the inclusion of drop shoots for the safe disposal of conveyor spillage, were included in the design.

Nick Donker, Senior Engineer Zinc Processing says the team encountered difficult weather conditions during installation, but managed to finish the work safely and ahead of schedule.

“It was completed thanks to the leadership of Rick Brill, Project Supervisor Zinc Processing, with the support of the project team whose commitment ensured the job was completed safely and without incident, even with rain and high winds during the installation,” Nick says.

All new safety features built into the C3 Conveyor Bridge will be implemented on new bridges going forward with Conveyor 15 the next conveyor to be replaced and currently in the design process.
The rollout of Advanced Process Control (APC) modules to improve performance across the Zinc Lead Processing circuit continues, with a fourth unit recently commissioned and more scheduled into the future.

The latest upgrade, to the Semi-Autogenous Grinding (SAG) mill, was completed in February this year.

APC software works with the existing control systems to automate adjustments to the processing circuit, maximising operational stability and performance through the use of predictive models.

These models are established through extensive step-testing during development to see what impact changes to the settings have on the overall results. This testing is repeated multiple times to build a set of data that can be used to accurately anticipate mill performance and allow adjustments to maintain consistency and stability.

Adam Price, Senior Metallurgist says the software has the ability to continuously monitor the plant, making changes every 10 seconds if required to ensure reliable and stable operation throughout the processing circuit.

“The APC software has been integrated to the Zinc Rougher/Recleaner, Lead Ball Mill 04 Rougher, Lead SAG Rougher, and Zinc Pre-Cyclones. The benefits vary depending on the process and the aim of that section of the plant, but the overlying benefit to all processes is improved plant stability” Adam says.
Mount Isa Mines’ Zinc Lead Concentrator has completed a $4 million project to commence mixing its own ethyl xanthate, a key reagent used in our zinc and lead processing complex.

The ore mined at our George Fisher and Lady Loretta Mines is ground into a fine powder through a series of mills, before being pumped into the Flotation Circuit to separate mineral content from waste material.

Reagents, including ethyl xanthate, attach to the minerals and are carried to the surface by jets of air bubbles injected into the base of the tanks. The rich metallic froth is collected and concentrated for further processing and export.

From conceptual stage in 2016, through to the Xanthate Plant commissioning in November 2017, the project team has met and overcome many challenges along the way, while delivering significant ongoing cost savings for the business.

Sameer Morar, Superintendent Planning and Projects says some innovative solutions and controls to manage risks have been born from the project.

“We’ve collaborated with regulatory authorities, and have set a standard regionally for how we’re handling xanthates to mitigate risks with material handling,” Sameer says.

“This included the construction of a storage shed for ethyl xanthate containers to minimise thermal degradation of the product and assist with stock management. The mixing facility was designed to provide live monitoring of carbon disulphide gas generation, and maintains strict adherence to temperature ratings for plant equipment.

“The safety controls present have allowed us to implement a task-based approach for PPE usage, with the aim to minimise operator dehydration and fatigue associated with the use of impermeable overalls. We continue to maintain close engagement with the supplier to improve and maintain the quality of ethyl xanthate.”

The previous ethyl xanthate supply contract concluded at the end of April 2017. The Copper Concentrator’s reagent farm provided support to mix ethyl xanthate for the duration of the construction of the new facility.

“A number of technical challenges were faced due to differences in supply quality and type of xanthate mixed at the reagent farm,” Sameer says.

“These were overcome due to good synergy between the Copper Concentrator and Zinc Processing personnel. Excellent support was received from the Reagent Mixing Plant at the Copper Concentrator to ensure our ethyl xanthate supply through the mixing plant construction phase.”

The Xanthate Plant was commissioned in November 2017.

The ethyl xanthate storage shed is designed to minimise thermal degradation and assist with stock management.

The operator is safely lifting the bag containing ethyl xanthate to the mixing tank.

The Xanthate Plant was commissioned in November 2017.
Our operations are full of inspiring women who play an integral part in our business. NAIDOC week this year provided a special moment in time to honour our Aboriginal and Torres Strait Islander women who continue to inspire, motivate and lead our teams.

A number of activities were held in Mount Isa and Cloncurry with both Mount Isa Mines (MIM) and Ernest Henry Mining (EHM) supporting events celebrating Aboriginal and Torres Strait Islander history, culture and achievements.

Representatives from MIM attended festivities in Mount Isa and a hosted stall at the MOB-FM Family Fun Day. MIM also continued their sponsorship of the annual NAIDOC ball held at the Irish Club which gathered 130 people and honoured Aunty Pattie who was awarded the lifetime achievement award.

EHM employees attended the careers fairs in Cloncurry and the annual NAIDOC March. The Kuppi Murri band night was also a huge success and proudly sponsored by EHM.

Will Blackley, Supervisor Indigenous Employment for Mount Isa Mines said that the women in our community have a strong influence and presence and it was very special being able to celebrate all that they do.

“It was also encouraging and rewarding to see so many Indigenous Employment Program employees put their hands up and offer to help with events for NAIDOC week celebrations,” Will says.

‘Because of her, we can!’ 2018 NAIDOC week celebrates contribution of Indigenous women

This year’s NAIDOC festivities celebrated the vital role that Aboriginal and Torres Strait Islander women play as active and significant role models in the community.
The challenge aimed to promote proactive approaches to health and wellbeing, and to encourage positive lifestyle changes. During the challenge participants provided their colleagues with encouragement and support, helping each other to stay focused and on track towards their personal goals, which included increasing fitness for work, lowering cholesterol and blood pressure, controlling blood sugar levels, and simply making better lifestyle choices.

The challenge included education around lifestyle factors that lead to life-changing chronic disease and focused on equipping participants with tools for self-management and self-discipline. Baseline measurements and health indicators were taken at the beginning of the challenge and milestones set and assessed every two weeks. Healthy recipe ideas, home workouts, free workout locations, gym membership reimbursements and other incentives were offered to keep everyone motivated and on track to meet their targets.

Fran Burgess, General Manager Zinc Processing said it was important to promote positive changes that are sustainable, and provide an environment that supports these behavioural changes.

“The eight-week challenge gave our people the tools to better manage their health, establish new habits and, importantly, make choices to reduce the risk of chronic disease and promote fitness for work,” Fran said.

“Health and safety is a shared responsibility and working together as a team encourages accountability not only for ourselves but also our work colleagues.

“Congratulations to the challenge winner, Villimae Temo, and well done to all who participated and have made the commitment towards living a more balanced healthy lifestyle.”

Eight-week Challenge inspires positive lifestyle changes

Members of the Zinc Processing team are more motivated than ever after completing an eight-week health and wellbeing challenge, collectively losing over 226 kilograms and 828 waistline centimetres.

Fran Burgess, General Manager Processing, congratulates the Challenge winner Villimae Temo, Electrical Apprentice, who lost 17.6% of his body weight.
As part of our annual Receiving Environment Monitoring Program (REMP), Environment teams at Mount Isa Mines, Lady Loreta Mine and Ernest Henry Mining diligently monitor the health and integrity of our waterways and catchments to assess potential impacts to the environment.

REMPs are a requirement under the Environmental Protection Act (1994) and an important condition in the Environmental Authorities (EAs) that govern our operations in Queensland.

Receiving environments are the ecosystems that could potentially be impacted by mining activities, or natural changes such as seasonal variability of rainfall.

Guidelines for REMP studies place strict regulations around monitoring our receiving environment which includes routine inspections at prescribed reference and compliance sites to ensure we have appropriate data on how the environment is performing.

Some of the fauna monitored during REMP’s include macroinvertebrate communities such as beetles and snails. While some macroinvertebrates are sensitive to pollution, others can easily flourish in poor quality water. Because of this variability in sensitivity to pollution, macroinvertebrates are excellent biological indicators of how our waterways are faring.

Another component of the REMP is to monitor fish health and abundance, this is completed through electrofishing, which stuns the fish momentarily while measurements and health assessments are completed before being released back into the water.

Candice Nucifora, Senior Environmental Advisor Mount Isa Mines says the health of our receiving environment is evaluated by comparing the results of current sampling events to those from previous years where considerable focus is given to any notable change in the size and diversity of flora and fauna communities, water quality, stream sediment and erosion.

“Rainfall also has a significant impact on the biodiversity of ecosystems. In the Mount Isa region surface water is generally only present for short periods following rain events. This lack of water in creeks, streams and rivers can have significant implications in the development and health of the receiving environment,” Candice says.

The next REMP surveys are due to be completed in November 2018.
Each year we invest heavily in local organisations and initiatives through our Corporate Social Investment programs, providing funding and support to projects and events that make our communities vibrant and enjoyable places to live.

PARKRUN MOUNT ISA
Mount Isa’s weekend Parkrun has received a CR Plus Automatic External Defibrillator donated by Mount Isa Mines. If administered within a few minutes of a cardiac arrest, a defibrillator can increase a casualty’s chance of survival from 10 per cent to 70 per cent. MIM is proud to provide this vital lifesaving equipment to this event that promotes wellness and outdoor exercise to the community.

HEADSPACE MOUNT ISA
MIM sponsored Headspace Mount Isa to host the 2018 Mount Isa Youth Week Concert & Festival, with the concert to be held in Mount Isa in March featuring artist Johnny Ruffo. The youth driven annual event celebrates the contribution of young people in our community, and provides a valuable platform for building connections between individuals and services, as well as for establishing local peer support networks.

ZONTA CLUB OF MOUNT ISA
MIM was proud to be a platinum sponsor of the 2018 Zonta International Women’s Day Dinner to acknowledge the social, economic, cultural and political achievement of women in Mount Isa. Inspirational guest speaker and former Mount Isa school student Kristee Shepherd from the Making Strides Recovery Foundation shared her story about overcoming adversity following a spinal cord injury.

CLONCURRY AND DISTRICT SHOW SOCIETY
EHM was thrilled to sponsor the Cloncurry Show once again. The two-day June event celebrates the district’s best local produce and attracts quite a crowd, finishing with a fireworks display.

CLONCURRY STATE SCHOOL SCIENCE LAB
We recognise the importance that quality education plays in the communities in which we operate, and are proud to have partnered with the Department of Education and Cloncurry State School to refurbish the school’s science lab. Along with improving the facilities for all students, a quality education in the Science, Tech, Engineering and Maths curriculum creates pathways for local students wanting to pursue a career in mining.

CENTACARE COMMUNITY GARDEN CLONCURRY
Funding from Glencore helped bring the Cloncurry Community Garden to life, creating a shared community space for the people of Cloncurry. Incorporating computerised watering and bore access to ensure year-round vibrancy, the area includes veggie gardens, fruit vines, bush tucker, communal cooking spaces and a yarning circle. With guidance from Centacare staff, community and school groups have driven the care and development of the project, ensuring a strong sense of ownership and investment from the community.
Parkrun Mount Isa Co-ordinator Sarah Choyce and Stuart Reid, General Manager Mining, Zinc Assets, with the Defibrillator, proudly donated by Mount Isa Mines.

Indigenous youth perform traditional dance at the Community Garden opening.

School and community groups have taken ownership of the gardens, looking after maintenance and care of the crops and communal space.

Traditional Indigenous dancing at the Headspace Youth Week Concert and Festival.

Giving young people a voice at the annual Youth Week concert, with guest performer Johnny Ruffo.
MIM back in the saddle for another 5 years of rodeo

Mount Isa Mines has announced a new, five-year agreement as naming rights and gold sponsor of the Mount Isa Mines Rotary Rodeo securing major sponsorship through to 2022 and injecting over $600,000 into the event.

As one of the largest natural resource sector employers in Queensland, Glencore is committed to supporting initiatives that improve the regional communities where we operate. This commitment is part of our multi-billion dollar annual contribution to Queensland – through jobs, buying goods and services and directly investing in local communities.

Mike Westerman, Glencore Copper Australia Chief Operating Officer says he is delighted to continue the mine’s long history of support for the iconic event. “Mount Isa is known for two things around the world, Mount Isa Mines and the Isa Rodeo, so it’s no coincidence that the two are so strongly linked,” says Mike.

“Mount Isa Mines has been a major sponsor of the Mount Isa Mines Rotary Rodeo for 60 years, which is a sign of our support and ongoing commitment to Mount Isa and its premier annual event.

“To mark the Diamond Jubilee 60th Anniversary, we’re providing another $60,000 to help establish the Isa Rodeo Hall of Fame in Mount Isa.”

Natalie Flecker, Mount Isa Mines Rotary Rodeo General Manager says she is thrilled that Mount Isa Mines has once again come onboard as the naming rights and gold level sponsor of the rodeo for another five years.

“We are so grateful for the level of support Mount Isa Mines provides to the whole community, and through its long term sponsorship of the rodeo, it allows us to move forward with confidence in staging a world-class event that has been recognised with Australian Tourism Awards for the past two years,” Natalie says.

To celebrate the 60th Anniversary of the rodeo this year Kate Jones, Queensland Tourism Industry Development Minister announced the entertainment line-up for the 2018 Mount Isa Mines Rotary Rodeo.

“The headline act for the Mount Isa Mines Rotary Rodeo concert will be none other than Jimmy Barnes. Along with James Blundell, and The McClymont Sisters will be headlining this wonderful concert in its 60th year,” Minister Kate Jones says.

Glencore is proud to continue our long-term partnership with the rodeo, which injects around $8 million into the local economy and attracts thousands of people to the north-west.
Glencore came out on top at the Northern Australian Emergency Response Competition hosted in Mount Isa in June, as eight teams from across northwest Queensland and the Northern Territory tested their skills going head to head for the Best Overall Team trophy.

Teams from Glencore’s Mount Isa Mines (MIM), Ernest Henry Mining (EHM) and McArthur River Mine (MRM) performed strongly across the competition, against other operations including, ERA’s Ranger Mine, Cannington Mine, Phosphate Hill, Newmont Tanami Mine, and Gove Operations.

The MIM Rescue squad were crowned overall winners, securing the Best Overall Team Trophy after dominating Fire Fighting, Breathing Apparatus (BA), Search and Rescue, and Team Safety Award.

MRM also performed strongly, taking out the top three ‘Best Individual’ placings, while EHM secured second place in BA, Search and Rescue, and Team Safety Award.

Teams were tested over the three day competition on a range of team drills including fire fighting, road-crash rescue, and rescue at heights along with BA drills, HAZMAT response, and theory and individual skills components.

Lucas Ljubicic, Mount Isa Mines Planning Engineer was awarded second place in the Best Captain category, in his first competitive event in that role.

“I certainly felt the nerves and pressure on the day, but we have a good group of guys and we just concentrated on doing our best and giving the home crowd something to be proud of,” Lucas said.

“Being part of Mines Rescue ultimately allows me to help my workmates if there is an emergency situation onsite, competitions like this allow us to put all our training into practice so that we can ensure we have the skills to keep our people safe.”

MIM Senior Emergency and Protective Services Advisor Graham Hills said that the annual competition is great learning opportunity for Mines Rescue teams to test their abilities in true-to-life scenarios and share knowledge and training techniques.

“Having eight teams from across North West Queensland and the Northern Territory compete in this challenge is essential in improving skills, learning and confidence of our Mines Rescue personnel,” Graham said.

“It is a professional and well respected competition adjudicated by experienced rescue personnel and we are always proud to be a part of it.”

“This year it was extra special as we were hosting the event and our Mount Isa Mines Team won it. I am very proud of their efforts.”

Along with ‘Best Overall Team’, Mount Isa Mines took out a variety of minor awards on the evening.

Mount Isa Mines wins the 2018 Northern Australian Emergency Response Competition
Good Shepherd Catholic College Year 7 students took part in the QMEA Water 4 All science workshop, examining how water is monitored, managed and treated to meet various water quality requirements on a mine site. The program involved a series of fact sheets, activities and practical problems for teachers to use in their year seven science classes.

MIM Environment team members visited the school to demonstrate typical in-field monitoring practices and equipment to add real-world knowledge and application to the activities the students had been studying. David Logan, Environmental Coordinator says he was keen to be an industry mentor for the program, offering authentic practical examples of how science is used in his job every day in the Environment team at a mining operation.

“It’s important for students to have access to resources sector professionals early in high school, while they’re considering their career options,” David says.

“It was an opportunity to be able to provide insight to the students on the ways that the Health, Safety, Environment and Communities (HSEC), teams work with the more readily recognisable operational departments to achieve common goals for the community and the business,” David says.

He was accompanied on the day by Tegan Johns, a former student at Good Shepherd, now with the Environment team as a part of the School Leavers program.
Senior students spend holidays hard at work at QMEA camp

Thirty-nine senior students from across north-west Queensland spent the first week of the mid-year holidays in Mount Isa working on a range of projects at the QMEA Make it Now in Engineering (MINE) and Make it Now in Trades (MINT) camps.

Sixteen students considering engineering careers spent a week on site at Mount Isa Mines, working on projects as a part of the MINE program. The students worked in teams of four on real challenges facing operational departments on site, presenting their solutions to a panel and fielding questions at the end the week.

Twenty-three students participated in the MINT program, working on a trade skills challenge – integrating a small petrol engine into the drivetrain of a bicycle under the guidance of Glencore apprentices.

Glencore’s North Queensland Vacation students awarded scholarships

Eight university students from Glencore’s Vacation Program have secured scholarships providing financial assistance through their studies, bringing them a step closer toward a graduate role at Glencore.

For some, the Vacation Program is their first taste of the mining industry and is a chance to decide whether the industry is right for them.

Others return for multiple placements during their studies, keen on securing a coveted Graduate position once they complete their degree.

While on site, participants work on supervised projects and assisted with day-to-day tasks, building experience and on-the-job knowledge.

After the three-month program, high-performing students are offered scholarships with the condition they take up positions as graduates, or complete another vacation placement during their next holidays break.

Harry Kippen was a vacation student with Ernest Henry Mining working with the projects and reliability team over the three months.

“I thoroughly enjoyed my experience as I was exposed to a professional engineering environment and it really gave context to my mechanical engineering degree,” Harry says.

“I was given projects and work tasks that helped develop my engineering knowledge and drove me to learn more and ask more questions.”

Steven Remmer was a vacation student at our Port Operations in Townsville where he worked with the Projects Team and was also awarded a scholarship, and says the experience was incredibly rewarding.

“I am very grateful to have been given the opportunity to be a part of the Student Vacation Program that has allowed me to apply the theoretical knowledge I have learnt at university to workplace situations,” Steven says.

“I thoroughly enjoyed my time at Port Operations and would like to thank everyone for their help and support.

“I am positive this experience has helped set the building blocks for my future career.”

From left to right: Dan Brooks, Manager Processing Tech Services North Queensland, Edward Provan, Harry Kippen and Megan Grainger, vacation students and Aaron Harrison, Mine Manager Ernest Henry Mining.

Mount Isa and Cloncurry STEM students at the end of the QMEA MINE and MINT program weeks.
This year, 21 school leavers were employed across Mount Isa Mines and Ernest Henry Mining under the 2018 School Leavers Program.

Glencore’s talent pipeline programs have become more diverse over the years and include a variety of options for young people who are wanting to pursue a career in resources.

These entry level opportunities provide on-the-job experience in resources roles and exposure to a career in the industry.

In 2015, the School Leavers program was added to supplement our existing pathway programs such as Girls for Mining, Indigenous Employment Program, Work Experience and the Apprenticeship, Vacation and Graduate programs.

Stephanie Jackson, Senior Human Resources Advisor North Queensland Copper says the program has been a growing success and options are being explored to extend the model with a focus on traineeships that could potentially build pathways into paraprofessional roles.

“Since the inception of the School Leavers Program, two have secured apprenticeships, seven were offered full time positions with the company in various departments including the Copper Concentrator, Human Resources, Safety and Training, and Information Systems and Technology, and a further five took up positions with contracting companies,” Stephanie says.

“Predominantly, school leavers have been offered labouring positions, however, there has been a shift towards administrative type roles in areas such as Information Systems and Technology, Environment and Technical Services. We are also looking at offering students 3, 6 and 12 month options.”

Following the completion of her placement in the 2017 School Leavers Program, Charlotte Cullen was offered a permanent contract with Human Resources Administration and Support, Mount Isa Mines Copper Assets. Charlotte said the program is a great stepping stone into the mining industry for high school graduates.

“The program presents some great opportunities for those with little or no exposure to the industry. Personally, I found the experience helped me to grow as a person and as an employee, my confidence and communication skills have improved significantly,” Charlotte says.

“I believe the School Leavers Program offers a rare opportunity to gain invaluable hands on experience in a professional workplace that could ultimately lead to a rewarding career at Mount Isa Mines or elsewhere.”
Our People

Young professionals represent Mount Isa Mines on the national stage

Here we profile three young professionals from Mount Isa Mines who have made an impact in their chosen field well beyond the city limits of Mount Isa.

**DANIEL TAYLOR, SENIOR MINE GEOLOGIST**

Dan is a Senior Mine Geologist at Mount Isa Mines, responsible for coordinating the collection of geological data and using this to advise departments, from Exploration through to the Development and Production, reliant on quality information to carry out safe and efficient mining activities.

As a recognised leader in his field, Dan was recently invited to speak to geology students at the University of Adelaide about life as a mining geologist, career progression and options for development both in general, and at Mount Isa Mines.

Dan has previously presented at other conferences around Australia including the Society of Economic Geologists’ ‘World-class Ore Deposits: Discovery to Recovery’ in 2015, and the Australasian Institute of Minerals and Metallurgy’s 10th International Mining Geology Conference in 2017.

**MICHAEL GENOCKEY, SCHEDULING ENGINEER**

As a Scheduling Engineer, Michael’s role sees him working with all departments at Mount Isa Copper Operations to ensure that they are setting and achieving plans that will result in the mine meeting its production commitments.

Michael recently won the Australasian Institute of Minerals and Metallurgy (AusIMM) New Professional Award at a dinner held in conjunction with the 2018 AusIMM Congress in Adelaide on 21 April. The New Professional Award recognises the contribution of young technical professionals to the minerals industry through operational, academic, service or other notable achievement.

Michael has been involved with the AusIMM for eight years since joining the Adelaide Student Chapter while studying a double degree in mining and geology. He joined the North West Queensland Branch committee as Secretary when he moved to Mount Isa in 2016.

**RIELLY SMITH, ROCK MECHANIC**

Rielly is part of the Operations Engineering Department in Technical Services, where she provides geotechnical advice to operational teams around the stability and safety of rock formations throughout the mining environment.

Rielly is also actively involved with the twice-yearly North West Queensland Geotechnical Conference (NWQGC). The conference provides a platform for geotechnical engineers and suppliers to share professional experiences and network in the North West Minerals Province.

The ninth NWQGC was held in Cloncurry in April and was attended by 40 geotechnical professionals, support staff and suppliers from across the North West Minerals Province.

Rielly says the conference provides a chance for engineers to discuss key learnings, new technologies in the geotechnical field, and an opportunity to exchange personnel experiences while working in the region.

Daniel Taylor, Senior Mine Geologist and Rielly Smith, Rock Mechanic Engineer, Mount Isa Mines

Michael Genockey, Scheduling Engineer, Mount Isa Mines

Daniel Taylor presenting at AusIMM International Mining Geology Conference in Hobart

Daniel Taylor, Michael Genockey and Rielly Smith

**MINE TO MARKET**

HereweprofilethreeyoungprofessionalsfromMountIsaMineswhohave madeanimpact intheirchosenfieldwellbeyondthecitylimitsofMountIsa.
In March, Glencore launched its 2018 Girls for Mining Mentoring Program, partnering our female employees with local Mount Isa and Cloncurry high school girls for career development and mentoring.

Thirty senior students from Good Shepherd Catholic College, Spinifex State College and Cloncurry State High School are currently participating in the program, under the watchful eyes of their Glencore mentor.

Having a trusted mentor offers young women valuable insights into organisational and professional life, and helps students plan their future careers. Students receive individual support, advice, and guidance from their mentor in an occupation of their choice as well as the opportunity to complete work experience onsite.

Leanne Ryder, Human Resources Manager for Glencore’s North Queensland Copper Assets says Glencore is committed to providing employment pathways for local youth and supporting careers for women in mining.

“This program is one way we can make a positive impact on gender diversity in the resources sector while giving young women in our community exposure to a wide range of mining professions,” Leanne says.

Robyn Braes, Senior People Operations Business Partner for Glencore’s Zinc Assets says one-on-one career coaching benefits the mentees while also providing our mentors with a valuable leadership development opportunity.

“Coupled with supportive working practices and policies at a site level, we foster an environment that encourages women to excel in a historically male dominated industry,” Robyn says.

Lexie Hudson from Cloncurry State School will be under the watchful eye of Annika De Hesse, Plant Metallurgist Ernest Henry Mining.

Vanessa Sexton, Project Geologist Ernest Henry Mining with Bianca Johnson-Murr from Cloncurry State School at the Ernest Henry Mining Girls for Mining event.

Maya Marsh, Human Resources Business Partner mentored Namrata Chetty, Spinifex State College student during the 2018 Girls for Mining program in Mount Isa.
The breakfast was an opportunity for Glencore employees to come together to celebrate women all over the world and be inspired by the success of our female peers in mining.

Queensland Commissioner for Mine Safety and Health Kate du Preez, the first woman to hold the position, attended as special guest speaker, and shared her own inspirational story of success.

Kate told of the many challenges she faced as a young woman starting out in the coal mining industry, including overcoming the ban on women working underground in her home country of South Africa, with the support of her then boss and mentor.

The resources industry in its entirety currently employs 14 per cent of women in non-traditional mining roles with a goal set to increase this to 20 per cent by the year 2020.

Kate said although there has been progress towards female employment in the mining industry, there is still under representation of women in mining, especially in senior management roles.

“Workforce diversity adds to industry; women bring a different perspective to the table and stereotypes need to be changed,” Kate said.

“As women we are not here for special treatment, we need to take responsibility for our own careers and work hard. I have always put myself out there for new challenges and with hard work and good support, I have managed to succeed.”

Fran Burgess, General Manager Processing Zinc Assets Mount Isa addressed the breakfast, speaking about her involvement with Women in Mining and Resources Queensland (WIMARQ).

WIMARQ, supported by the Queensland Resources Council (QRC) is a group of volunteers that provide high quality mentoring and support to women in all areas of the resources sector in Queensland.

Ms Burgess encouraged female employees to join the newly established North West WIMARQ group, which officially launched on 8 June.

The morning also included a live stream telecast of the Queensland Resources Awards for Women held in Brisbane.

On 8 March, employees attended Glencore’s Women in Mining breakfast to celebrate International Women’s Day.

Motivational morning for Women in Mining

Shye-Leigh Rankine, Year 12 Cloncurry State School student, attended the awards in Brisbane representing north west Queensland.

She was one of three finalists in the Exceptional Queensland Minerals and Energy Academy (QMEA) Student in Queensland Resources category, receiving a high commendation.

Fellow QMEA students from Spinnifex State College and Good Shepherd Catholic College attended the satellite breakfast in Mount Isa in support of Shye-Leigh.

Leanne Ryder, Human Resources Manager North Queensland Copper took the opportunity to launch the 2018 Girls for Mining Mentoring Program which is open to all year 10, 11 and 12 female students in Mount Isa and Cloncurry.

“The program enhances the company’s commitment to gender diversity which is important to our business,” Leanne says.

Leanne thanked the senior management team for their support in making the Women in Mining International Women’s Day breakfast event possible.
Using bright industrial polymers, tank cell flaps now also act as safety markers for workers carrying out inspections on top of the tank cells.

Mount Isa Mines Copper Operations (MICO) has taken flight in our underground mining operations, using drone technology in the ongoing mission to improve safety and efficiency.

Aerial drones were used to collect detailed images of operational areas that are not safely accessible by geotechnical staff like the large open stopes created by mining operations.

Visual inspections remain an important part of geotechnical work, and the footage collected by the drones allow for more detailed understanding of the way the rock masses are behaving during the stoping process.

Geoff Potgieter, Superintendent for Operational Services MICO says the drones are ideal in mining areas that are unreachable by workers.

“We can send a drone into locations where we would never send one of our people to collect data to support our activities,” Geoff says. “The challenge for us was to build a low cost model that was suitable for inspecting stopes, and where the replacement price for a drone wouldn’t be cost prohibitive should it be damaged within the stope.”

Research and development is continuing in 2018 to develop a cost effective drone prototype for underground stope viewing.

Challenges in the production of suitable drones include the ability to operate without GPS signals which are not accessible underground, and uprating the battery capacity to power lighting systems to give clear, informative video footage.

New, brightly coloured cell flaps are being installed along the edges of the Tankhouse cells at Townsville’s Copper Refinery Limited (CRL) to improve safety for workers at the facility.

Nearly all of the 1,162 cells have had their cell flaps changed out from an older fibreglass reinforced grating to a bright yellow industrial polymer, providing clear visual marker for employees working on top of the Tankhouse cells.

During refining, alternating plates of stainless steel and copper anode from the Mount Isa Mines Copper Smelter are lowered into the cells that are filled with copper sulphate solution. Low voltage electric charge transfers copper molecules from the anode onto the stainless steel plates, creating 99.995% pure copper cathode.

Workers regularly walk across the cells monitoring for ‘shorts’, where irregularities may form and affect the cathode production.

Geoff Potgieter, Superintendent for Operational Services MICO says the brightly coloured flaps were an important safety addition to the work area, as traditional safety measures like hand rails are not able to be installed due to the overhead crane system used in the Tankhouse.

“When it is not possible to engineer a hazard out, a solution like this can and must be considered and implemented where possible,” Darren says.

Sharon Mayorga, Lead Safety Advisor says that making the cell end flaps more visible was an important way of ensuring the safety of our workers moving around on top of cells. These clearly visible flaps act a little like the hi-vis lines beside a rail pedestrian platform...
Building your super balance – Salary Sacrifice contributions

Boost your super and potentially manage your tax at the same time.

What are salary sacrifice contributions?
Making a before-tax contribution to your super is known as ‘salary sacrifice’. It involves your employer contributing some of your pre-tax salary or wages directly into your super fund. By using a smart strategy like salary sacrifice, you could reduce your income tax and boost your super balance at the same time.

You should consider whether the salary amount sacrificed will attract an additional 15% tax – broadly, this occurs when you have an income and concessional super contributions of more than $250,000 in the 2017/18 financial year.

Why should I salary sacrifice?
The key advantage of salary sacrificing is that you’ll be taxed at a maximum rate of just 15% (or 30% if you are also subject to the additional 15% tax) on salary sacrifice contributions and any earnings on these contributions once invested in your super fund and not at your marginal rate (which could be up to 47%).

Therefore, depending on your circumstances, making salary sacrifice contributions could reduce the amount of tax you have to pay on your salary, wages or a bonus by up to 32% and enable you to make a larger investment for your retirement.

Watch your limits
The concessional contributions cap for 2017/18 is $25,000. It is important to know that your employer contributions PLUS any salary sacrifice contributions PLUS any fees or insurance premium subsidies your employer pays into your superannuation is included in the concessional contribution limit.

Want to know more about Glencoresuper?
We have a dedicated website for Glencoresuper (Plan). Here you can find information about your plan and access our online tools, information and education to help you create your dream retirement. To access this site:
1. Go to plum.com.au
2. Select the ‘Login here’ option.
3. Enter the Login ID which is plumx and PIN 5000.
4. Select ‘Login’.

Contact us
For more information visit plum.com.au or call us from anywhere in Australia on 1300 55 7586 between 8am and 7pm AEST (8pm daylight savings time), Monday to Friday.

The benefits of salary sacrifice over 20 years

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Receive $5,000 pay rise as after-tax salary each year and invest outside super
Sacrifice $5,000 pay rise into super each year

Assumptions: A 20 year comparison based on $5,000pa of pre-tax salary. Both the super and non-super investments earn a total return of 7.36% (growth 4.06%, income 3.30%, franking 2.85%). All investment income is reinvested. Both investments are cashed out at the end of the 20 year period. All figures are after income tax (at 15% in super and 39% inclusive of Medicare outside super) and capital gains tax (including discounting). These rates are assumed to remain constant over the investment period. The example salary of $100,000pa isn’t indexed.

1 Applicable for the 2017/18 financial year and includes Medicare levy.
* Individuals whose ‘earnings’ exceed $250,000 in the 2017/18 income year may be subject to an additional 15% tax on their concessional contributions. If this applies, the tax will be assessed to you personally and you will receive an assessment notice from the ATO.

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Fatigue can be caused by a number of factors working in combination, such as, work, medical conditions, unhealthy lifestyle choices and stress.

If you are getting enough sleep, good nutrition and exercising regularly but still find it hard to perform everyday activities, concentrate or be motivated at your normal levels, you may be experiencing fatigue that needs further investigation.

Fatigue is a symptom, something you can feel and describe, not a condition or disease. To reduce your fatigue you first need to understand what the underlying reasons for your fatigue are.

The wide range of causes that can trigger fatigue include:

- **Medical causes** – unrelenting exhaustion may be a sign of an underlying illness, such as a thyroid disorder, heart disease or diabetes.
- **Lifestyle-related causes** – alcohol or drugs or lack of regular exercise can lead to feelings of fatigue.
- **Workplace-related causes** – workplace stress, work schedule, long shifts and strenuous jobs can lead to feelings of fatigue.
- **Emotional concerns and stress** – fatigue is a common symptom of mental health problems, such as depression and grief, and may be accompanied by other signs and symptoms, including irritability and lack of motivation.

If fatigue is having a negative effect on your quality of life, or causing you distress, then consider speaking with a health professional. By asking questions, they will help you work out why you are experiencing fatigue, and offer some suggestions on how to find relief.
Announcements

Congratulations to Chelsea Andrews, Executive Assistant, North Queensland Copper and Steve Andrews on the birth of their son, Finn Mac, on 25 February 2018.

Congratulations to Ben Taylor, Development Superintendent George Fisher Mine and Steve Andrews on the birth of their daughter, Emma, on 1 March 2018.

Congratulations to Chris Wright, Electrician, George Fisher Mine and Christina on the birth of their daughter, Alessa Pamela, on 8 March 2018.

Congratulations to David Matthews, Senior Rock Mechanic Engineer, Mount Isa Copper Operations Technical Services and Emily on the birth of their daughter, Beatrice Adelaide, on 24 April 2018.

Congratulations to Adam Langtree, Fitter – Copper Concentrator Reliability and Simone on the birth of their son, Bryce Thomas, on 26 April 2018.

Congratulations to Jessica Wall, Acting Training Advisor, Mount Isa Copper Operations and Elliot Parker on their marriage in Byron Bay, on 5 May 2018.

Congratulations to Sam Kingi, Automation Technician, George Fisher Mine and Alicia on the birth of their second son, Theodore Thomas Scott, on 9 May 2018.

Congratulations to Benjamin Cripps, Auto Electrician, George Fisher Mine and Gebela on the birth of their son, Finn James, on 21 May 2018.

For Sale

Hyundai Veloster SR Turbo Plus – two years old, low kilometres, panoramic sunroof, seven speed dual clutch automatic, pearl white, park assist, rear view camera, cruise control, push start and keyless entry, sporty bucket seats plus lots more. $25,500 negotiable. Contact Tenai Ferguson 0437 718 503.

Calendar of Events

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<td>Mount Isa Mines Rotary Rodeo – 60th Anniversary</td>
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Mine to Market is printed on Impact paper stock.

Impact is made with a carbon neutral manufacturing process* and consists of 100% post consumer waste recycled fibre.

* Mill use 86% renewable energy, meaning emissions generated by producing Impact are incredibly low. The remaining unavoidable CO2 emissions are compensated for by promoting controlled emission reduction projects, audited and certified by Climate Partner. The life cycle analysis tracks Impact from raw materials through to K.W. Doggett Fine Paper Warehouses nationally.
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*The 6% corporate discount is provided under our Corporate Health Plan and is applied to the gross premium at the chosen level of cover. Growth Rate Data Sourced - APRA OPERATIONS OF PRIVATE HEALTH INSURERS ANNUAL REPORT 2016/17 where Queensland Country Health Fund placed 3rd out of 36. Queensland Country Health Fund Ltd ABN 18 085 048 237.