Leigh wins WIR Award
Local recruitment drive
Pullout Fish Poster
Plants may hold clues to water quality
The Dry season has arrived and with it comes a higher level of activity both on and off the mine site.

This is the time of year when mining ramps up, bringing the opportunity for increased employment. It is particularly pleasing this year to see around 25 local people being offered new jobs across various positions on site.

The job offers follow a rigorous internal process to increase local employment through the identification of skills available locally and matching them to positions at MRM. I would like to welcome all our new trainees and wish them well in their journey as part of the MRM team.

In June we welcomed the Northern Australian Emergency Response Competition to MRM, with four teams from across northern Australia competing over three days. All our Emergency Response Team members are volunteers who train throughout the year to gain the skills and knowledge needed to respond to a range of incidents and emergencies.

While our Emergency Response Team was established to respond to incidents onsite, most of their work is actually carried out in the community. They are called on to help with fires, car crashes and other accidents off site and do a great service to the Gulf region.

We’ve also welcomed a host of other visitors to site over the past few months, including Government officials involved with evaluating our draft Environmental Impact Statement on waste rock management. While submissions have closed as part of the formal EIS process, our team will continue to consult with the local community and other stakeholders as we prepare supplementary information for consideration by Government.

In Borroloola, we’re looking forward to hosting the MRM annual art and colouring-in competition at the Show on 30 June. Our theme this year is “What Makes You Happy”, with a focus on mental health issues. We will also be joined at the show by the team from Kidsafe NT promoting the Buckle Up Borroloola Program.

The rodeo promises to be a highlight of the calendar in August. Both MRM and the MRM Community Benefits Trust will have stalls at the event. We’d love to see you there.

Finally, I would like to thank all of our people here at MRM who have pulled out all stops to work through this increased level of activity in a safe manner. It’s great to see them working together as a team to support each other both on site as well as in the community.

Sam Strohmayr
General Manager
An open community meeting in Borroloola gave local residents the opportunity to provide input into the Draft Environmental Impact Statement for the management of waste rock on the McArthur River Mine (MRM) site.

Held on Wednesday 19 April, the meeting heard the proposed development of the mine would see the site operating for an additional 10 years, extending the mine life through to 2047.

The extension of the mine life is a result of a proposal to reprocess tailings, the waste product of milling operations, from the Tailings Storage Facility.

The proposal not only provides employment for an additional 10 years, it also ensures the complete removal of the Tailings Storage Facility and the subsequent rehabilitation of the land it is situated on.

The rehabilitation plan is one of a number of proposals in the Draft EIS, which is currently before the NT Environment Protection Authority.

Others include putting waste rock from operations back into the open cut during the last seven years of operations to allow the early start on rehabilitation of the waste rock pile.

Public comment for the Draft EIS closed on 3 May.

Residents also talked about current operations, including the current local recruitment drive to employ new people during this year.

Feedback from people at the meeting included questions around air quality, employment for local people and how the waste rock pile will be developed into the future.

MRM holds open community meetings every three months in Borroloola.
Leigh to represent NT on national stage

The first woman to operate a digger at McArthur River Mine (MRM) has taken out the top gong in her category at this year’s NT Women in Resources Awards.

Operator and Emergency Response Team vice-captain Leigh Mott was named winner of the Outstanding Tradeswomen, Operator or Technician category at the awards dinner in Darwin on 3 June.

Leigh Mott will represent the Northern Territory at the national Women in Resources Awards in August.

Raised on a farm and operating machinery most of her life, Leigh joined MRM in 2011 because the opportunity to work on “the big machines” at the mine site was too tempting to refuse. She has worked her way through the ranks, becoming the mine’s first woman to operate a digger.

Her work as part of the Emergency Response Team has allowed her to shine among her peers, rising to the position of vice captain and giving her the opportunity to give back to the community.

The Women in Resources Awards celebrate the achievements of women, men and companies who make outstanding contributions toward a more diverse workforce.

MRM General Manager Sam Strohmayer said he was proud of the company’s record of creating opportunities for women.

“She is an inspiration to both men and women at MRM,” Sam said.

“She puts 100% into everything she does and will be a great ambassador for the Territory at the national awards in Launceston in August.”

As part of the competition entry, we asked some of Leigh’s colleagues to make comment on her skills and leadership qualities.

“Leigh is well known across all departments at MRM for her professional, passionate and positive attitude, which she takes with her while carrying out all of her duties and projects,” one said.

And from another: “Leigh is a selfless woman who I am proud to work beside and have part of the team. I can honestly say people like her make the FIFO work much more bearable.”
Three MRM employees joined Leigh in the finals at the Women in Resources Awards in June.

Carina Graham: Finalist in the Outstanding Young Woman in Resources category. The travel bug originally brought Carina from her homeland of Scotland to Australia in 2009. Almost at the end of her two year working visa, Carina was offered a job with MRM, who went on to sponsor her application for a permanent visa. Carina is superintendent of the human resources and training functions as well as now a naturalised Australian. She is seen as a mentor for young women across the mine site and always has time to help new people settle into the mine life.

Ann Waaka: Finalist in the Outstanding Women in Resources category. Ann blazed a trail through mining when few women were welcome in the industry. She always wanted to work as a driller and spent time in Asia learning the ropes before finally landing a job back in Australia. She has risen rapidly through the ranks and is now mining production supervisor. Ann has helped raise thousands of dollars for the Royal Flying Doctor Service as well as the Women’s Safe House in Borroloola.

Karen Heazlewood: Semi-finalist in the Outstanding Women in Resources category. Karen’s position as a civil engineer has made her a women among many men at MRM and previously at Mount Isa Mines. She is responsible for MRM’s tailings dam where she applies not only her professional knowledge but also her communication skills in managing multiple stakeholders. She is looked up to as a strong mentor and leader by women not only in her own work area but across the site.

Awards recognise young Territorians

Congratulations to Neily O’Connell, a deserving winner of the Regional and Rural Initiative Award in the Northern Territory Young Achiever Awards.

Based in Araluen in Central Australia, 26-year-old Neily is the Youth Engagement Officer at Headspace. She facilitates the Youth Advisory Group to provide mental and physical health services to schools and the community and to decrease the stigma around mental health through education.

Neily is also the volunteer Director and Company Secretary of Alice Springs Community Financial Services, working with a team to support the community through scholarships and sponsorships.

She is pictured here receiving her award from McArthur River Mine General Manager Sam Strohmayer, a proud sponsor of this category for many years to promote the work of young Territorians in regional and remote communities.
Regulators get a close up view of mine

NT Government officials have been able to learn more about MRM’s operations as they consider the draft Environmental Impact Statement lodged in March.

Nineteen Government officials have visited the site over the past few months including Board Members of the Northern Territory Environment Protection Authority (NT EPA), NT WorkSafe staff and representatives of the departments of Primary Industry and Resources, Environment and Natural Resources, Treasury and Finance and Health.

MRM has organised the tours to give Government and the EPA as much information as possible about our plans for the future of the mine.

“It’s one thing reading the scientific studies but being able to see the site first hand can give people insights into how we operate,” MRM General Manager Sam Strohmayer said.

MRM also welcomed a visit by the Independent Monitor’s team on site in June.
Local recruitment drive continues

Borroloola and Gulf region residents are looking to gain some of the benefits of new jobs at McArthur River Mine this year.

Recruitment forums in Borroloola in late 2016 identified a range of skills available in the local community. Following on from this, the mine worked on how these skills could fit with the business.

More than 40 people have now toured the mine to see their potential working environment and recruitment is at various stages, including a number of people already working.

MRM General Manager Sam Strohmayr said it was great to see the level of enthusiasm from local people.

“I’m a great believer in the fact that local people will become some of our best employees,” Sam said.

“It’s especially good to see so many young people coming along on the site tours to see what opportunities might be available.”

The jobs include employment in the mining area, metallurgy, environment and administration. Skill levels range from entry-level positions through to professional jobs.

The most recent site tour on Wednesday 26 April included 31 potential job candidates. The site tours were followed up with further interviews and medicals for potential new employees.

New starters look forward to learning new skills

New recruits to McArthur River Mine are looking forward to learning new skills and gaining a measure of independence.

Simon Ellis, Buchanan Bates and Jerome Pluto are among a group of young Borroloola people who have found jobs at the mine as part of the latest recruitment drive.

They started on site in June and say MRM gives them a chance to earn money, meet new people and “do something different”.

Jerome is working in the mill, Buchanan in mining and Simon has joined the environment team.

More new trainees will be commencing over coming months.

Potential new recruits are shown around site by Mining manager Steve Rooney.
Freshwater Fish of...
The McArthur River

- Barramundi: *Lates calcarifer*
- Berney’s Catfish: *Neoarius berneyi*
- Freshwater Longtom: *Stongylura kreffii*
- Sooty Grunter: *Hephaestus fuliginosus*
- Lesser Salmon Catfish: *Neoarius graeffei*
- Fly River Garfish: *Zenachopterus sp*
- Gulf Grunter: *Scortum ogilbyi*
- Shovel-nosed Catfish: *Neoarius paucus*
- Snub-nosed Gar: *Arrhamphus sclerolepis*
- Barred Grunter: *Annimataba pereoides*
- Hyrtl’s Tandan: *Neolisurus hyrtlilii*
- Milk Fish: *Chanos chanos*
- Spangled Perch: *Leiopotherapon unicolor*
- Black Catfish: *Neolisurus ater*
- Oxeye Herring: *Megalops cyprinoides*
- Seven-spot Archerfish: *Toxotes chatareus*
- Toothless Catfish: *Anodontognathus dahlil*
ERT offers high wire help

MRM’s Emergency Response Team (ERT) has come to the rescue for Mabunji radio station.

The radio transmission aerial was struck by lightning earlier this year and a replacement was needed.

But at 30m off the ground, no one locally had the training and experience to scale the heights to install a new one.

Mabunji contacted MRM to see if any experienced riggers could be found to help out. That’s when ERT pitched in to help.

Team members Mitch Griffiths and Luke Sibenaler thought the task would be good training for the upcoming Northern Australian Emergency Response Competition, so put their hands up to do the job.

After a few hours scoping the size and scale of the job, they returned to Borroloola the following day.

Mitch scaled the radio tower, with Luke on the ground making sure the job was safe. Technicians gave instructions on how to connect the new aerial and job was done within a matter of hours.

The new aerial significantly improves reception for listeners of Mabunji Radio in Borroloola.

Emergency Response Competition gets underway

Emergency responders from across northern Australia converged on McArthur River Mine in June to put their skills to the test.

Four teams competed in the Northern Australian Emergency Response Competition held at the mine – the first time the competition has been held on a working mining site.

MRM Environmental Approvals Manager Gary Taylor has been involved in the Northern Australian competition since its inception but this year has taken on the role as the overall coordinator for the event.

“From my own experience, training and competing in the event helps teams develop their skills, putting them in a better position to respond in a real emergency.”

Local residents were also involved, acting as casualties for the scenarios.
Emergency team ready for anything

MRM’s Emergency Response Team has been in solid training over the past few months for the Northern Australian Emergency Response Competition at MRM in June.

But their real mission has nothing to do with the competition – it’s all about being ready to respond should any emergency occur either on site or in surrounding communities.

MRM’s Emergency Response Team consists of 29 personnel from across the mine site and at Bing Bong Loading Facility. All have other jobs – as engineers, operators, environmental technicians, electricians and more – but in an emergency they come together.

Workers volunteer for the job and are put through a rigorous training program which includes first aid, fire fighting, vertical rescue, confined space rescue, breathing apparatus and remote site navigation.

While they are primarily established to respond to on-site emergencies, the reality is that most of their missions happen in the community.

“We’ve responded to car accidents, local fires and medical emergencies,” ERT coordinator Kel Bendeich said.

“We’re closer to where the incident takes place and are able to respond faster.

“It’s also a great way for the mine to give back to the local community.”
MRM’s work areas and accommodation village are a little safer now, with 13 new people accredited as snake handlers in June.

The staff took part in a one-day course with an expert snake handler, learning how to identify, catch and safely remove snakes from areas where they could come into contact with people.

Like most of the Top End, the MRM and Bing Bong sites are home to a range of venomous and non-venomous reptiles. While many of them pose no threat to humans, more dangerous ones need to be moved away for safety.

Employees across the site volunteer as snake handlers and are on call at any time of the night or day to remove problem snakes or advise village residents when the animals should be left alone.

Survey hears worker views on safety

MRM has been taking the pulse of its workforce to determine shifts in the mine’s safety culture.

Conducted by external company Sentis, the survey was conducted in May across Glencore’s zinc assets in Australia.

Safety climate is employees’ shared perceptions of the more visible aspects of safety culture. A strong and positive safety climate is vital for good safety performance because it affects how people think and behave at work.

MRM takes safety culture seriously as it strives for zero harm. It has had a long-standing partnership with Sentis to deliver safety training and measure the results through both safety performance and worker perceptions.

Survey results help in the development of future improvement initiatives.

DO YOU KNOW THE LIFE SAVING BEHAVIOURS?

1. Always come to work drug and alcohol free.
2. Always use or wear critical safety equipment.
3. Always wear appropriate fall protection equipment when working above two metres.
4. Only operate equipment if trained and authorised.
5. Always isolate and ‘test for dead’ prior to working on energy sources.
6. Never modify or over-ride critical safety equipment without approval.
7. Always seek and obtain clear approval before entering mobile equipment operating zones.
8. Never enter Danger Zones.
9. Always report injuries and HPRIs.

The SafeWork Life-Saving Behaviours are at the core of safety improvements across MRM.
Plants may hold clues to water quality

Sampling from trees and plants may hold the clues as to the quality of water beneath the ground.

That’s what is being put to the test in a new study conducted for McArthur River Mine by Indo-Pacific Environmental.

The new research complements the routine monitoring of water and soil and involved the testing of land and water to monitor the environment.

Trees take in water, nutrients and metals through their roots and draw it up through the trunk, before pushing the water out of their leaves.

“Trees are big pumps and can move hundreds of litres of water from the ground and out through their leaves every day,” Indo-Pacific Environmental Director Dean Thorburn said.

“Based on this, we have been placing large plastic bags on branches of a Eucalypt which occurs on the mine site to collect the water which comes out and have this analysed.”

“It is then compared to results from ground water samples. The aim of the project is to see whether this collected water can be used to monitor ground water in the same way water from bores is currently used.”

Leaves and bark have also been collected and analysed for metals to see if they can be used to monitor the effects of dust which may deposit on the trees. The hope is that a handful of leaves or a piece of bark can be collected and sent to the lab and the data used to indicate where dust may be landing. McArthur River Mine can use this information to reduce dust in certain areas.

Water plants have also been collected and current results show that they accurately reflect the quality of the sediment in the bottom of the river.

“This is a great result,” Dean said.

“Sometimes getting sediment from the bottom of a river is difficult, like when its flowing or deep. This means we can take a handful of macrophyte (water plant) from the edge of the bank and use this instead.”

Long term it is hoped that the analysis of water plants may mean that McArthur River Mine can reduce the number of fish which are currently being collected from the creeks and river and analysed for metals.

The research will initially be conducted for three years and may provide a new technique for monitoring mines throughout Australia.
Air quality station helping to develop monitoring program

A small caravan on the side of the highway at MRM holds the secret to understanding air quality in communities surrounding the mine.

The caravan houses an Air Quality Monitoring Station (AQMS) to detect sulphur dioxide ($SO_2$), which can be produced when some rocks are exposed to air or water before cover systems are put in place at our waste rock pile.

Previous continuous monitoring at Devil Spring and Borroloola had shown $SO_2$ readings so low that the monitoring program was discontinued, with Government approval.

The current monitoring location was subsequently established directly adjacent to the NOEF to detect small and isolated $SO_2$ emission events. This allows emissions to be recorded, investigated and the cause addressed swiftly.

An independent air specialist has been working with MRM to develop a new Air Quality Management Plan (AQMP) that has been presented to the Government in May. As a result, the current AQMS will be relocated further north between the mine and the off-site receptors (Devil Spring and Borroloola).

National Environment Protection Measures (NEPMs) air quality standard which are designed for residential areas where people could have constant exposure to source will be applied at that location.

For environmental and on-site locations, MRM has developed operational performance triggers and associated response protocols in the event of an exceedance to minimise air quality emissions and maintain the NEPM standard at off-site sensitive receptors.

Installation and commissioning of the $SO_2$ monitoring unit to the new location will be conducted in the next few weeks. During that phase, there will be no raw data available on MRM’s website.

New dam to manage water

A new fully-lined water management dam is almost ready for commissioning at MRM.

Known as the Western Perimeter Run Off Dam – or WPROD – the dam will help MRM manage water across the site.

The dam is primarily designed to catch water run-off from the waste rock pile during its construction. After the waste rock pile is fully rehabilitated and stabilised, it is planned to remove the dam and return the country to natural bushland.

With a capacity of 1275 megalitres, it is the largest of the dams surrounding the waste rock pile on the MRM site.

It is fully lined with an impervious liner, which stops water from seeping into the environment, and is far superior to traditional clay liners. It has taken 6 months to construct the new dam, which can be seen on the Carpentaria highway to the north of the mine site.

A new fully-lined water management dam is almost ready for commissioning at MRM.

Installation and commissioning of the new dam will be conducted in the next few weeks. During that phase, there will be no raw data available on MRM’s website.
Updated Waste Discharge Licence in place

A new Waste Discharge Licence is in place, setting out the parameters for any release of water from the McArthur River Mine site.

A Waste Discharge Licence is required under the Water Act whenever there is the potential for waste to come into contact with water, such as when water is discharged from a mine site.

It is issued by the Northern Territory Department of Environment and Natural Resources.

Like other mine sites, MRM complies with this legislation, with a new Waste Discharge Licence issued about every two years. The current licence was issued on 28 April 2017 and will be in force until 28 April 2019.

The Licence sets out the water quality parameters to be complied with in the McArthur River downstream of MRM discharge and includes values for metals, salts and nutrients. It also includes information about when water can be released and how this should be communicated to the public, stakeholders and neighbours.

Although not a requirement of the licence, MRM publishes information about water quality monitoring at its compliance point on a quarterly basis.

Water quality update 1st quarter 2017

Our Waste Discharge Licence approved by the Department of Environment and Natural Resources outlines the allowable levels of metals and other materials in the water at a compliance point downstream from the mine to protect the McArthur River.

The top figures are the allowable concentrations under our Waste Discharge Licence, set by the Department of Environment and Natural Resources.

The bottom figures are the average concentrations over the first quarter of 2017 at our compliance point on the McArthur River downstream from the mine.

The exceedances in aluminum are due to naturally-occurring metals in the environment.

**Table: Water Quality Comparison**

<table>
<thead>
<tr>
<th>Metal</th>
<th>Allowable Level</th>
<th>Average Q1 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium</td>
<td>1.099 (µg/L)</td>
<td>0.56 (µg/L)</td>
</tr>
<tr>
<td>Arsenic</td>
<td>0.56 (µg/L)</td>
<td>0.01 (µg/L)</td>
</tr>
<tr>
<td>Cadmium</td>
<td>1.05 (µg/L)</td>
<td>0.62 (µg/L)</td>
</tr>
<tr>
<td>Copper</td>
<td>0.01 (µg/L)</td>
<td>0.01 (µg/L)</td>
</tr>
<tr>
<td>EC</td>
<td>158 (µS/cm)</td>
<td>173.85 (µS/cm)</td>
</tr>
<tr>
<td>Iron</td>
<td>700 (µg/L)</td>
<td>11 (µg/L)</td>
</tr>
<tr>
<td>Nickel</td>
<td>208 (µg/L)</td>
<td>10.97 (µg/L)</td>
</tr>
<tr>
<td>Nitrate</td>
<td>1000 (µg/L)</td>
<td>300 (µg/L)</td>
</tr>
<tr>
<td>Lead</td>
<td>62 (µg/L)</td>
<td>6.38 (µg/L)</td>
</tr>
<tr>
<td>Manganese</td>
<td>1.9 (µg/L)</td>
<td>19.65 (µg/L)</td>
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<tr>
<td>Mercury</td>
<td>0.01 (µg/L)</td>
<td>0.01 (µg/L)</td>
</tr>
<tr>
<td>Sulphates</td>
<td>3.41 (mg/L)</td>
<td>341 (mg/L)</td>
</tr>
<tr>
<td>Zinc</td>
<td>7.82 (µg/L)</td>
<td>6.28 (µg/L)</td>
</tr>
</tbody>
</table>

*Concentrations for metals are based on filtered metals.*
Celebrating long service to MRM

Six MRM employees have joined the 15-year club, with each celebrating 15 years or more as employees of MRM.

The club inducts new members each year at a special dinner in Darwin as they celebrate the major milestone of employment. MRM has been operating for 22 years and has so far celebrated this achievement with only 27 other employees.

This year’s inductees were Bradley Arstall, Lee Boydell, Colin Dowton, Darren King, Greg O’Sullivan and Daniel Smith.

MRM General Manager Sam Strohmayer – himself one of the original employees when MRM began operations – said the longevity of employment among many staff was a sign of the MRM culture.

“Our philosophy is to provide a great workplace where people want to stay and work,” Sam said.