

# INDEPENDENT MONITOR REPORT

1 April 2018 to 30 April 2020

May 2021



A GLENCORE Company

The latest Independent Monitor Report on McArthur River Mine (MRM) confirms there has been a continuous improvement in the environmental management and performance at the mine. MRM remains committed to being open and transparent with the community about our environmental and operational performance.

## The report found:



No significant environmental issues were found to have occurred during the audit period.



The increased attention on key environmental risk areas has resulted in improved performance.



The McArthur River and its creeks are in good health.



It is safe to eat fish from the McArthur River such as barramundi, sooty gunter, archer fish and cherabin (fresh water prawn).



## Key successes noted by the Independent Monitor:



Our water management strategy has helped the mine improve management of storage, volume and quality of mine water.



We tried new ways to permanently seal mine waste earlier than what was required under our mine license conditions.



We undertook an extensive Ecotoxicology program to better understand the potential impacts to aquatic fauna.



We installed more dust monitors to help us identify the sources of mining dust and improve our controls.

You can view updated footage of the McArthur River channel and the waste rock facility every month at: [www.glencore.com.au/operations-and-projects/mcarthur-river-mine/see-our-mine-site](http://www.glencore.com.au/operations-and-projects/mcarthur-river-mine/see-our-mine-site)

# PERFORMANCE SCORECARD

The Independent Monitor looked at how well MRM is meeting the conditions set out in our Mining Authorisation, Waste Discharge License and Northern Territory Environment Protection Authority (NT EPA) Recommendations.

**MRM scored full compliance with the active recommendations made by the NT EPA to improve environmental performance.**

The IM Report included an assessment of 274 conditions. Each condition was scored as either 'Fully', 'Partly' or 'Not' compliant and then given an overall percentage (%).

There were no non-compliances and only 35 conditions that were scored partly compliant. These were largely administrative in nature (e.g. documentation procedures and management) and posed a low risk to the environment.

MRM has either already addressed these or is in the process of doing so.

## Did you know?

MRM has **430 monitoring sites** we use to collect and analyse data to ensure we meet our regulatory requirements for air quality (including dust and sulphur dioxide), ground water and surface water.

**In accordance with the IM scoring method, MRM achieved very high levels of compliance and no non-compliances with the conditions of our Authorisation across each of the environmental aspects.**

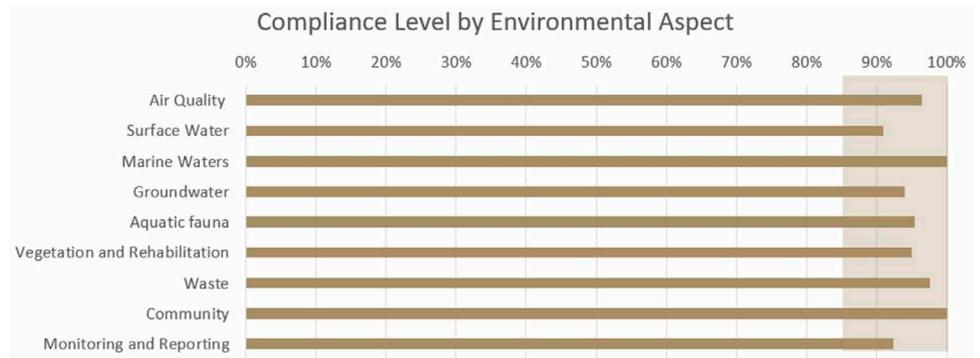


Figure 3-1: Authorisation – Operator compliance level illustrated by Environmental Aspect, page 25, Annual Environmental Performance Audit Report 2020 – McArthur River Mine, Independent Monitor

**In accordance with the IM scoring method, MRM achieved the highest compliance scores for the Tailings Storage Facility and Overburden emplacement Facility operation domains.**

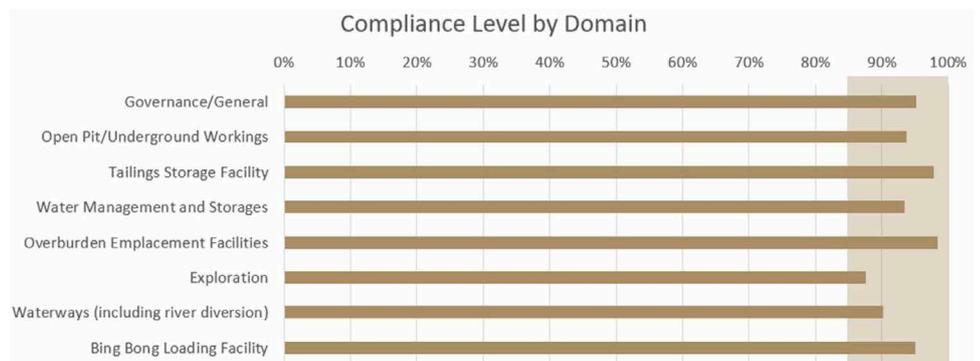


Figure 3-2: Variation of Authorisation – Operator compliance illustrated level by Operator Domain, page 26, Annual Environmental Performance Audit Report 2020 – McArthur River Mine, Independent Monitor

## About the Independent Monitor

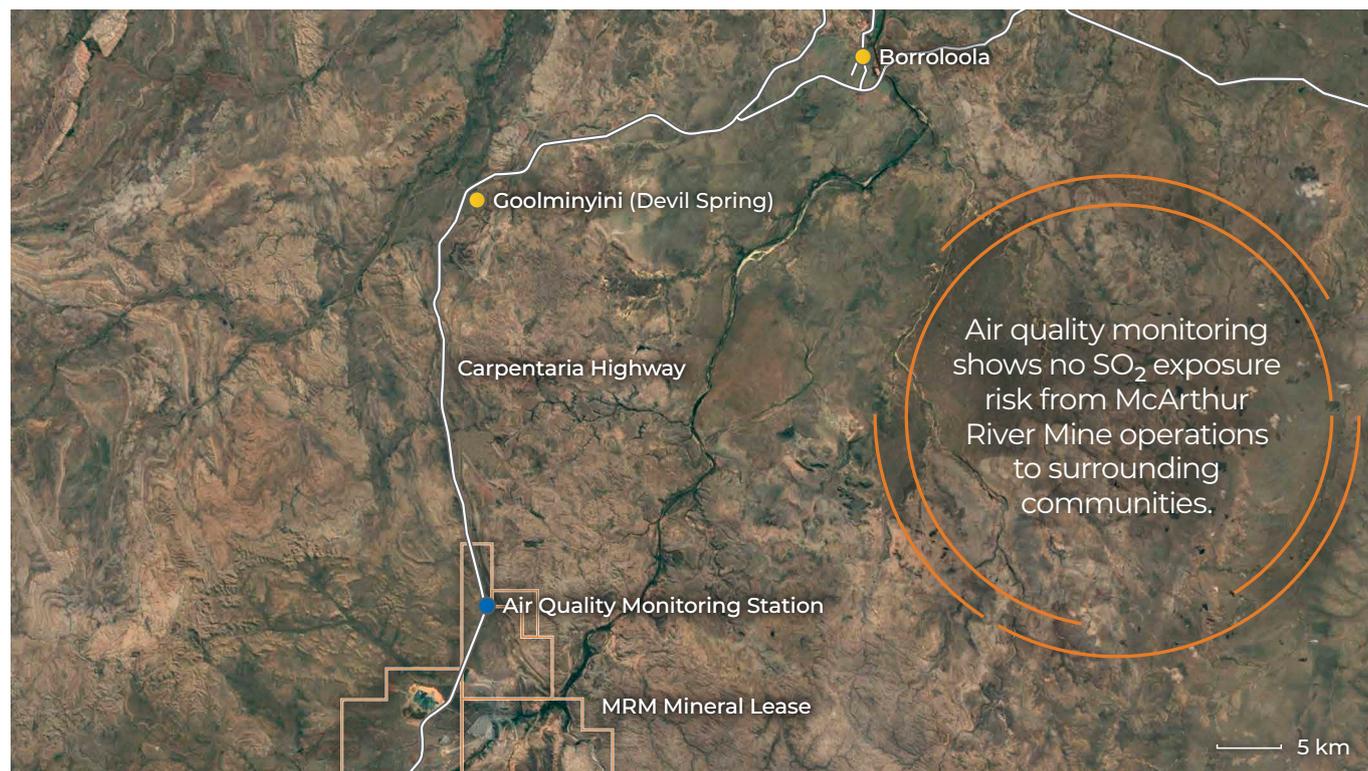
The Northern Territory Government appoints an Independent Monitor to assess the environmental performance of both McArthur River Mine and the mine regulator. Advisian Pty Ltd was appointed the Independent Monitor in December 2019.

In May 2021, the Independent Monitor released its Annual Environmental Performance Audit Report, which presents findings on the environmental regulatory compliance of McArthur River Mine and the Northern Territory Department of Industry, Tourism and Trade for the period 1 April 2018 to 30 April 2020.

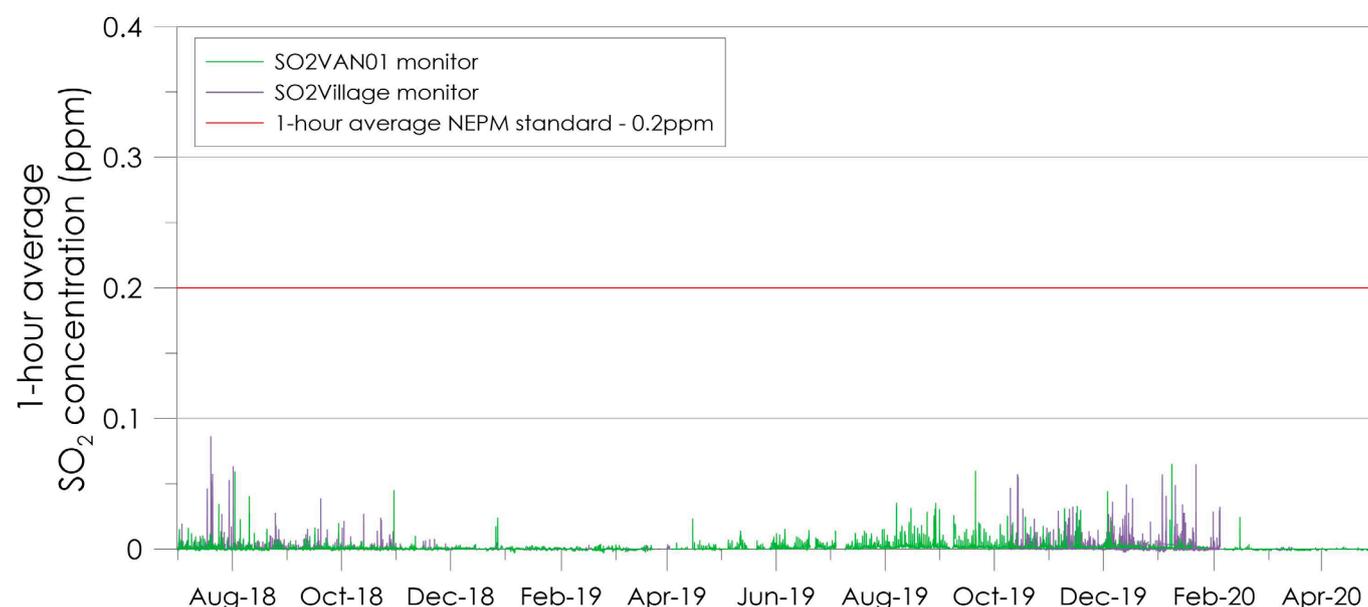
# AIR QUALITY

MRM operates an Air Quality Monitoring Station at the north of its mineral lease, which collects real-time sulphur dioxide (SO<sub>2</sub>) data and various atmospheric measurements. Data collected are independently reviewed and analysed by an external air quality specialist to determine the risk of exposure at the nearest communities of Goolminyini (Devil Spring) and Borroloola.

## Location of the Air Quality Monitoring Station, MRM and the nearby communities of Goolminyini (Devil Spring) and Borroloola:



## Air quality monitoring data – 1 April 2018 to 30 April 2020



Our real-time air quality monitoring data and monthly Air Quality Monitoring Data Reports are available at: [portal.mrm.sra-it.com](http://portal.mrm.sra-it.com)

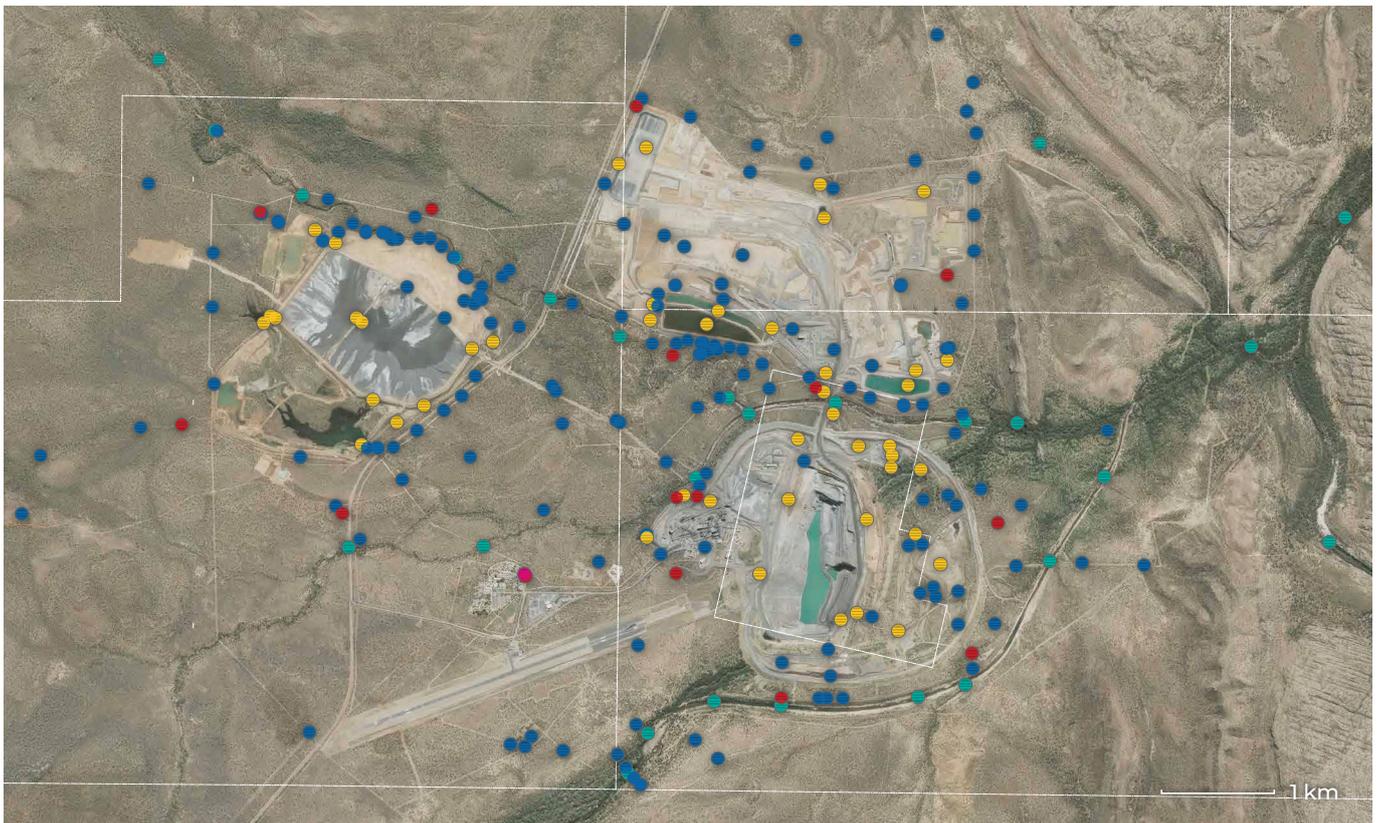
# WATER QUALITY

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McArthur River Mine has a comprehensive and ongoing water monitoring program. We regularly test water quality and aquatic fauna (e.g. fish) to monitor the health of the McArthur River within and outside the mining lease.

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**We sample and analyse data from 404 surface and ground water monitoring sites, including in the McArthur River.**



**McArthur River Mine monitoring locations and monitor types**

● Surface Water and Fluvial Sediment   ● Artificial Surface Water   ● Groundwater   ● Dust and Soil   ● Sulphur Dioxide

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## Two independent bodies have confirmed the McArthur River is in good health:

### The Independent Monitor found:

“The McArthur River is in good health” and “all fish from the McArthur River catchment taken outside of the mine, had low levels of metals, and were considered safe to eat”.

### A 2019 report by the NT EPA found:

“... the McArthur River, in terms of water quality and aquatic ecosystems, is in good condition at present” and “... no evidence of significant impacts on water quality or aquatic life in the McArthur River downstream of the mine”.

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# TAILINGS AND WASTE MANAGEMENT

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The Tailings Storage Facility and the Overburden Emplacement Facility at MRM have the highest number of conditions because these activities pose the highest environmental risk if not managed properly. These mining activity areas achieved the highest scores of all the areas in the operators domain by the Independent Monitor.

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## Waste management

Waste rock is stored at our North Overburden Emplacement Facility (NOEF). Some of our waste rock is rich in pyrites which means it can oxidise when exposed to air or water creating heat and sulphur dioxide.

In 2013/2014, some waste rock combusted when exposed to air. We addressed this issue by conducting an external environmental assessment and changing our waste rock management methodology, which was subsequently approved by the NT EPA.

The waste rock is now placed in smaller piles, compacted to a height of two metres and layered between clean materials. This layering stops air and water reacting with the pyrites in the waste rock.

We conduct ongoing and extensive monitoring of the waste rock pile.

McArthur River Mine has not experienced any significant issues with combustion at its waste rock pile since the new methodology was put in place.

## Tailings Storage Facility

Tailings are the finely ground residual waste materials left after the zinc, lead and silver are extracted from the ore during the processing phase of our operations.

McArthur River Mine conducts regular and extensive tests at its Tailings Storage Facility to ensure compliance with all environmental conditions and reporting.

This includes, regular independent review of facility design and operational controls and independent dam safety audits completed no less than every 18 months by one of the world's leading experts.

The report notes that “the high scores are a sign that McArthur River Mining is doing a good job at making sure that the mine's workers are spending time and effort looking after the high-risk mining activity areas to manage them well”.

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MAY 2021

## About McArthur River Mine

McArthur River Mine is located in the Northern Territory approximately 970 kilometres south-east from Darwin and 60 kilometres south-west of its closest township, Borroloola. McArthur River Mine mines one of the world's largest zinc and lead deposits.

McArthur River Mine provides direct employment to 1,200 people, including contractors. Last year we contributed over \$500 million to the local, Territory and national economies through our payment of wages, spend on goods and services from about 900 suppliers.

## Our approach

MRM is committed to being open and transparent with the community about our environment and operational performance.

We value our relationships with the members of the four main language groups in the Gulf Region and is very proud that almost one in four of our employees are indigenous.

We are currently working with the Northern Lands Council (NLC) and Traditional Owners on an Indigenous Land Use Agreement (ILUA) over our mine site and Bing Bong loading facility.

### MRM engagement with the community

You can visit us in person at our office in Borroloola or contact us via phone or email and view information about our environmental management on our website.

**Office:** Malandari Complex, Robinson Road, Borroloola, NT 0854

**Phone:** 08 8975 8179

**Email:** [tracy.jones@glencore.com.au](mailto:tracy.jones@glencore.com.au)

[mcarthurrivermine.com.au](http://mcarthurrivermine.com.au)

 [@GlencoreAus](https://twitter.com/GlencoreAus)

 [fb.com/GlencoreMcArthurRiverMine](https://fb.com/GlencoreMcArthurRiverMine)

### FOR FURTHER INFORMATION PLEASE CONTACT:

Francis de Rosa  
+61 (0) 417 074 751  
[francis.de.rosa@glencore.com](mailto:francis.de.rosa@glencore.com)

Tracy Jones  
+61 (0) 418 251 774  
[tracy.jones@glencore.com.au](mailto:tracy.jones@glencore.com.au)

**McArthur River Mining Pty Ltd**  
ABN 90 008 167 815

Post Office Box 36821  
Winnellie · NT 0821  
Australia

T. +61 8 8975 8179  
F. +61 8 8975 8170