

# QUARTERLY EXPLORATION AND MINING ACTIVITIES REPORT



## October to December 2021 (Q2 FY22)

25 January 2022

Mineral Resources Limited (ASX: MIN) ("MRL" or the "Company") is pleased to present its Quarterly Exploration and Mining Activities Report for the period to 31 December 2021.

## Q2 KEY POINTS

- Safety performance for the quarter improved, with no Lost Time Injuries and the Total Reportable Injury Frequency Rate decreasing to 2.25, an improvement of 3% quarter on quarter (qoq). The Lost Time Injury Frequency Rate improved slightly to 0.10.
- MRL amended its detailed COVID-19 Management Plan to align to the WA Government's updated policy on border closures during the quarter. Scenario and action plans were developed to help prevent COVID-19 from entering MRL operations and manage potential outbreaks.
- Unplanned border closures and lockdowns implemented following COVID-19 outbreaks around the country continued to impact MRL operations. Productivity was lower than expected with the forced curtailment of staff movements adversely impacting expected production volumes. Operating costs remain under pressure, impacted by lower productivity, higher fuel prices and increased off-site costs for haulage and shipping.
- Mining Services production volumes of 71.4Mt were 5% lower qoq and 14% higher than the prior corresponding period Q2 FY21 (pcp). The Mining Services business remains on target to meet FY22 volume guidance of a 15-20% increase.
- Iron ore shipments totalled 4.9 million wet metric tonnes (wmt) during the quarter, in line qoq and up 12% on pcp, driven by growth of the Utah Point Hub. Shipments for FY22 are on target to meet the revised full-year guidance of 18.5-19.5 mtpa (refer ASX Announcement on 18 November 2021).
- Discounts for low grade iron ore remained elevated during the quarter. The average realised iron ore price for the quarter was US\$63.23 per dry metric tonne (dmt), 19% lower qoq, with a realisation against Platts IODEX of 58%. This realisation was negatively impacted by finalisation adjustments totalling US\$29.4m for prior quarter shipments. Excluding prior quarter adjustments, shipments in the current quarter had an achieved price of US\$69.16 per dmt.
- Mt Marion produced 98k dmt of spodumene during the quarter, 3% lower qoq and 24% lower pcp. Shipments during the quarter were 92% higher qoq, reflecting the previous quarter's shipment being delayed to the second quarter of FY22. Mt Marion remains on target to meet FY22 guidance of 450-475 ktpa.
- The average realised spodumene price for the quarter was US\$1,153 per dmt, 56% higher qoq.
- Construction of the 50ktpa Kemerton Lithium Hydroxide Plant is continuing. Mechanical completion of Train 1 was achieved in November. Spodumene ore has now been introduced into the plant as part of the commissioning process. Commercial production is expected in mid-2022.
- The restart of the Wodgina Lithium Mine is underway with first spodumene production expected during Q1 FY23. Refer to the ASX Announcement on 25 October 2021.
- Significant engineering and detailed design continued to progress the Ashburton Project. During the quarter, two transhippers were contracted to be built at a major COSCO shipyard in China.
- The Company entered into a port and rail agreement with Hancock Prospecting Pty Limited and Roy Hill Holdings Pty Ltd to jointly develop a new iron ore export facility at South West Creek. Refer ASX Announcement on 29 November 2021. Consultation between the State Government, the Pilbara Port Authority, and Port Hedland users, regarding the Port Development Plan, continued during the quarter. MRL remains confident that approvals for the development of South West Creek will be granted in the near future.

## COVID RESPONSE

A major review of MRL's COVID-19 Management Plan was completed during the quarter to address the risks associated with the Omicron variant. MRL has opened 16 testing facilities around Western Australia utilising its own gold-standard PCR testing equipment and secured a reliable supply of rapid antigen testing to support ongoing employee screening across MRL's Perth and regional locations. All employees and visitors to site are now required to undertake PCR testing and return a negative result prior to entry. At all MRL metropolitan workplaces, regular rapid antigen testing has been introduced for all employees. In addition, MRL will be adopting an innovative Bluetooth technology to equip employees with wearable devices that will allow quick and efficient identification of close contacts of a COVID-19 infected person.

Throughout this pandemic, MRL's priority has always been to protect the jobs and health of our people and this is still the case. We continue to do everything possible, including following the advice from government and health authorities, to minimise the impact and risks that COVID-19 presents. MRL's COVID-19 Management Plan will be continually updated to remain current in line with all government and health regulations.

## PRODUCTION AND COMMODITY SHIPMENTS

	Q2 FY22		Q1 FY22		Q2 FY21	
	PRODUCED	SHIPPED	PRODUCED	SHIPPED	PRODUCED	SHIPPED
<b>IRON ORE ('000 wet metric tonnes)</b>						
Yilgarn Hub	2,571	2,050	2,598	2,371	2,955	2,742
Utah Point Hub	2,963	2,851	2,433	2,585	2,144	1,622
<b>TOTAL IRON ORE</b>	<b>5,534</b>	<b>4,901</b>	<b>5,031</b>	<b>4,956</b>	<b>5,099</b>	<b>4,364</b>
<b>SPODUMENE ('000 dry metric tonnes)</b>						
Mount Marion <sup>1</sup>	98	136	101	71	129	85

<sup>1</sup> Volumes presented as 100% for the Mt Marion Lithium Project. MRL operates 100% of the project, in which it owns a 50% interest

## IRON ORE

### Yilgarn Hub

'000 wet metric tonnes	Q2 FY22	Q1 FY22	QoQ Var %	Q2 FY21	PcP Var %
Mined	1,781	1,993	(11%)	2,381	(25%)
Produced	2,571	2,598	(1%)	2,955	(13%)
Shipped	2,050	2,371	(14%)	2,742	(25%)

Ore mined was lower in the quarter because of labour constraints and the removal of high-cost tonnes in line with the revised production guidance of 8.0 to 8.5mt.

Ore produced remained consistent at 2.6M wmt. Inventory was built during the quarter in preparation for delivery in the second half.

Shipping reduced qoq following the revised production guidance.

### Utah Point Hub

'000 wet metric tonnes	Q2 FY22	Q1 FY22	QoQ Var %	Q2 FY21	PcP Var %
Mined	2,869	2,835	1%	2,166	32%
Produced	2,963	2,433	22%	2,144	38%
Shipped	2,851	2,585	10%	1,622	76%

The volume of ore mined was in line with the previous quarter at 2.9M wmt.

Produced and shipped tonnes increased as the Wonmunna ramp up continued.

## LITHIUM

### Mt Marion

SPODUMENE					
'000 dry metric tonnes	Q2 FY22	Q1 FY22	QoQ Var %	Q2 FY21	PcP Var %
Mined	601	496	21%	647	(7%)
Produced	98	101	(3%)	129	(24%)
Shipped	136	71	92%	85	60%

Volumes presented as 100% for the Mt Marion Lithium Project. MRL operates 100% of the project, in which it owns a 50% interest.

Mining was impacted by significant resourcing constraints in Q2 FY22, however ore mining recovered over the previous quarter outcome.

Spodumene production was down year-on-year due to a reduction in yield experienced as we commenced production from a new pit stage and mined through transition ore.

The processing plant's utilisation was 91% while the throughput rate was 290 tph. This resulted in beneficiated feed tonnes of 574k dmt compared to 602k dmt in the previous quarter.

Shipped tonnes were higher in the quarter at 136k dmt because of a previous quarter's shipment falling into Q2 FY22.

## EXPLORATION AND DEVELOPMENT ACTIVITY

### IRON ORE

#### Yilgarn Hub

MRL completed a program of resource development drilling at Koolyanobbing, which included 1,128m of reverse circulation (RC) and 170m of diamond core drilling. An additional nine RC holes for 1,969m were drilled for the purpose of metallurgical test work to assess the potential for economic magnetite.

At Parker Range, 106 RC holes for 9,276m were drilled to infill the next stages of the Parker Range mine as part of mine development work.

#### Utah Point Hub

MRL continues to progress project development activities at Lamb Creek to support construction, which is scheduled to commence in Q4 FY22.

#### Ashburton Hub

MRL progressed development activities at the Bungaroo South deposit. A total of 104 RC holes for 10,570m and 15 diamond core holes for 1,501m were drilled throughout the quarter.

Significant engineering and detailed design continued to progress the Ashburton project. Two transhippers were contracted to be built at a major COSCO shipyard in China. The contract has an option for an additional two transhippers to be delivered in-line with the projected production ramp up. In addition, several critical supply contracts associated with the transhippers are being finalised. The project economics are compelling through all economic cycles and the Company remains ready to commence construction as soon as final Government and regulatory approvals are obtained.

#### South West Creek Hub

The Company entered into a port and rail agreement with Hancock Prospecting Pty Limited and Roy Hill Holdings Pty Ltd to investigate the development of a new iron ore export facility at South West Creek. Refer ASX Announcement on 29 November 2021. Consultation between the State Government, the Pilbara Port Authority, and Port Hedland users, regarding the Port Development Plan, continued during the quarter. MRL remains confident that approvals for the development of South West Creek will be granted in the near future.

A drilling program designed to collect a bulk sample for pilot plant test material using a Bauer drill rig commenced at the Marillana deposit, with a total of six holes for 271m drilled throughout the quarter.

### LITHIUM

#### Mt Marion

MRL commenced a 36,000m drilling program, comprising 25,000m of infill and extensional resource drilling at the current mining operation and 11,000m of exploration drilling testing pegmatite targets in Hamptons Area 53. A total of seven RC holes for 1,248m were drilled throughout the quarter.

#### Wodgina

The restart of spodumene concentrate production is underway, with first product expected during Q1 of FY23 in line with previous guidance. Initially, the MARBL JV (MRL 40%; Albemarle 60%) will focus on restarting one of Wodgina's three 250,000tpa processing trains. Subject to market demand, the MARBL JV may decide to restart two additional processing trains.

The start-up of the first processing train and initial operating phase at Wodgina is expected to create 200 new full-time jobs. Refer to the ASX Announcement on 25 October 2021. A drilling program, to support the mine restart, commenced with a total of 2,507m of RC and 481m of diamond core drilled during the quarter.

## Kemerton

Construction by Albemarle, on behalf of for MARBL JV, of the 50ktpa Kemerton Lithium Hydroxide Plant, near Bunbury in Western Australia's South West region, is continuing. Mechanical completion of Train 1 was achieved in November. Spodumene ore has now been introduced into the plant as part of the commissioning process. Commercial production is expected in mid CY22.

## Other Lithium Developments

Reed Advanced Materials Pty Ltd, in which MRL holds a 30% interest, agreed terms with Portugal's largest chemical producer Bondalti Chemicals S.A. to evaluate commercialisation of its ELi® lithium processing technology. Refer to Neometals Ltd's (ASX: NMT) ASX Announcement on 13 December 2021.

During the quarter, MRL also executed a binding term sheet with Pantoro Limited (ASX: PNR) and Tulla Resources Limited (ASX: TUL) to explore and develop lithium deposits in a joint venture across the Norseman Gold project tenure. Refer to Pantora's ASX Announcement on 14 December 2021.

## ENERGY

### Gas

Gas is an important element of MRL's Roadmap to Net Zero Emissions and the Company's strategy to secure a low-cost, long-term energy supply to enable the transition from diesel fuel to cleaner sources of energy.

MRL is the largest acreage holder in the Perth Basin and the onshore northern Carnarvon Basin and will continue an extensive exploration program across the portfolio to grow its gas resource base.

During the quarter, the drilling program for gas well Lockyer Deep 1 was completed. The well was designed to test a large structure named the Lockyer Deep prospect, with the primary target being the Kingia Sandstone located more than 4,000m below the surface. Operations at Lockyer Deep 1 will recommence in Q3 FY22 to conduct a gas production test to provide indicative gas flow rates and gas compositional analysis. If the production test results are positive, the well will be completed as a future production well.

Further exploration activities on this acreage (exploration permits EP 368 & EP 426) include a 2D seismic survey planned for Q3 FY22 and a 3D seismic survey planned for Q2 FY23 to enhance the Lockyer Deep data set and provide drilling locations for future wells.

A separate 2D seismic survey is also planned for exploration permit EP 454 in Q4 FY22.

Discussions have commenced to secure a drilling rig for additional wells across MRL's acreage during FY22 and FY23.

## Renewable energy

Installation of a 2.1MW solar array and battery at the Wonmunna mine site is underway. Wonmunna is currently powered by diesel and this solar installation will:

- Reduce the diesel consumption on site by approximately 600,000 litres per annum;
- Reduce the carbon emissions on site by approximately 1,800 tonnes of CO<sub>2</sub> per annum; and
- Allow the mine to run on 100% renewable power generation when the solar array output is at its peak capacity.

The combined solar/battery system will provide approximately 30% of the site's installed power requirements. The system has been designed with an expected life of up to 20 years.

## ENDS

*This announcement dated 25 January 2022 has been authorised for release to the ASX by Mark Wilson, Company Secretary of Mineral Resources Limited.*

## Further Information

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### About Mineral Resources

Mineral Resources Limited (ASX: MIN) is a Perth-based leading mining services provider, with a particular focus on the iron ore and hard-rock lithium sectors in Western Australia. Using technical know-how and an innovative approach to deliver exceptional outcomes, Mineral Resources has become one of the ASX's best-performing contractors since listing in 2006.

To learn more, please visit [www.mrl.com.au](http://www.mrl.com.au).

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