

EXPLORATION AND MINING ACTIVITY REPORT

January to March 2024 (Q3 FY24)



24 April 2024

Mineral Resources Limited (**ASX:MIN**) (**MinRes or the Company**) is pleased to present its Quarterly Exploration and Mining Activity Report for the period to 31 March 2024.

Q3 FY24 **KEY POINTS**

FY24 VOLUME AND COST GUIDANCE REAFFIRMED

- FY24 volume and cost guidance maintained for all operations.
- Lost Time Injuries Frequency Rate (LTIFR) of 0.16 and a rolling 12-month Total Reportable Injury Frequency Rate (TRIFR) of 2.24.

CORPORATE

- Process to introduce a partner to own a 49% interest in the Onslow Iron dedicated haul road is well progressed and on track to be signed in H2 FY24.
- MinRes intends to adopt a similar approach to fund the proposed development of its gas processing facility in the Perth Basin.
- Sold interest in Azure Minerals Limited (ASX: AZS) following acquisition proposal from Sociedad Química y Minera de Chile S.A. and Hancock Prospecting Pty Ltd.
- Sold non-core interest in Develop Global Limited (ASX: DVP).

MINING SERVICES

- Production volumes of 69Mt during the quarter, down 4% quarter on quarter (qoq).
- Year-to-date production volumes of 208Mt, a 9% increase on the prior corresponding period (pcp).
- Awarded four external contracts with Tier 1 clients that showcase MinRes' capability and infrastructure, as disclosed at the half year result. Contracts include lithium ore sorting, iron ore crushing, whole-of-mine services, and road train haulage in Queensland.

IRON ORE

- Iron ore shipments decreased 6% qoq to 4.5M wet metric tonnes (wmt). Average quarterly realised price of US\$98 per dry metric tonne (dmt), representing a 79% realisation of the Platts 62% IODEX.
- Onslow Iron:
 - Onslow Iron remains on target for first ore-on-ship in June 2024.
 - Mining is operating at full capacity, with 9.4Mt of total material moved during the quarter.
 - Works across the 150km haul road corridor are progressing in line with the project's staged first ore plans, with sealing and asphaltting works well underway.
 - Transshipping wharf, product storage shed and truck unloading facility structures at the Port of Ashburton are complete and port reclaimer successfully dry commissioned.
 - First two MinRes transhipper vessels and two tugs were delivered to the Port of Dampier in April 2024 and are expected to arrive at the Port of Ashburton by the end of April.

LITHIUM

- Spodumene concentrate pricing improved later in the quarter, with a 22k dmt shipment sold at US\$1300/t (SC6 equivalent) in March.

- The weighted average SC6 equivalent price achieved in the quarter across all three lithium operations was US\$1,030/dmt.
- Wodgina attributable spodumene concentrate production of 49k dmt and shipments of 64k dmt.
- Wodgina FY24 forecast to be on the low end of volume guidance and upper end of cost guidance.
- Lithium battery chemical production of 6.8kt, with a 7% qoq increase in sales to 7.0kt.
- Mt Marion spodumene concentrate production increased 9% qoq to 91k dmt, with attributable shipments of 76k dmt.
- First full quarter of production following the acquisition of Bald Hill, with a total of 30k dmt spodumene concentrate produced.
- Entered into a binding agreement, subject to conditions, with Poseidon Nickel Limited (ASX: POS) to acquire the Lake Johnston nickel concentrator plant¹.

ENERGY

- Lockyer-5 Sidetrack-1 (ST-1) revealed 27m of net gas pay with an average porosity of 18%².
- Well testing highlighted a maximum flow rate of 106 million standard cubic feet (MMscf) per day and an average flow rate of 104 MMscf per day, the highest stabilised flow rate in the Perth Basin.
- Drilling of North Erregulla-2 oil appraisal well in April 2024 intersected significant oil pay interval, comparable to the 47m net pay evaluated at North Erregulla Deep-1³. New oil pay was also observed in the overlying Arranoo Sandstone.

IRON ORE

	UNITS	Q3 FY24	QOQ VAR	PCP VAR
Yilgarn Hub (100% attributable basis, unless otherwise indicated)				
Mined	k wmt	1,500	(5%)	(27%)
Produced	k wmt	1,883	(7%)	(9%)
Shipped	k wmt	2,103	2%	(1%)
Pilbara Hub (100% attributable basis, unless otherwise indicated)				
Mined	k wmt	2,087	(8%)	(29%)
Produced	k wmt	2,059	(15%)	(30%)
Shipped	k wmt	2,432	(12%)	1%

Ore mined in the Yilgarn Hub decreased 5% qoq. Shipments increased 2% qoq but production was 7% lower qoq due to reduced feed availability resulting from onsite haulage constraints. Year-to-date Free On Board (FOB) costs were A\$107/wmt, in line with the FY24 guidance of A\$97-A\$107/wmt.

Pilbara Hub shipments decreased 12% qoq as the result of a vessel breakdown on the berth in January. This incident impacted five shipments, resulting in a loss of 520kt. Year-to-date FOB costs were A\$73/wmt, within the FY24 guidance of A\$67-A\$77/wmt.

The average realised iron ore price for the quarter was US\$98 per dmt, 18% lower qoq, representing a 79% realisation of the Platts 62% IODEX.

¹ ASX Announcement 18 March 2024.

² ASX Announcement 26 March 2024.

³ ASX Announcement 16 June 2023.

LITHIUM

MT MARION

	UNITS	Q3 FY24	QOQ VAR	PCP VAR
Mt Marion: Spodumene concentrate (50% attributable basis, unless otherwise indicated)				
Mined (100% basis)	k dmt	993	(20%)	85%
Produced	k dmt	91	9%	52%
Shipped	k dmt	76	(12%)	23%
Shipped – SC6 equivalent	k dmt	52	(13%)	31%

Ore mined decreased 20% in the quarter following implementation of cost-reduction measures, which included reallocating equipment and the redeployment of 130 people to other MinRes operations.

Spodumene concentrate production increased 9% qoq to 91k dmt, driven by higher utilisation of the plant and improved ore recoveries from an increased volume of fresh ore. Plant improvement initiatives continue.

A total of 76k dmt of spodumene concentrate was shipped and sold at a realised spodumene concentrate price of US\$718/dmt on a 4.2% basis (US\$1,048/dmt on a SC6 equivalent basis). March quarter sales were lower than production due to shipment timing. A 44kt (100% basis) cargo was subsequently shipped on 4 April 2024.

Underground development activity commenced with the box cut expected to be completed in May 2024, followed by the first underground portal firing. Underground mining studies are ongoing, with first underground production targeted from mid-2025.

Year-to-date FOB costs on a product basis were A\$518/dmt (A\$760/dmt on a SC6 equivalent basis).

BALD HILL

	UNITS	Q3 FY24	QOQ VAR	PCP VAR
Bald Hill: Spodumene concentrate (100% attributable basis, unless otherwise indicated)				
Mined	k dmt	251	N/A	N/A
Produced	k dmt	30	N/A	N/A
Shipped	k dmt	26	N/A	N/A
Shipped – SC6 equivalent	k dmt	22	N/A	N/A

Mined 251k dmt in the quarter as mining activities continue to ramp up, including 141k dmt in March 2024.

First full quarter of production post the acquisition of Bald Hill produced 30k dmt of spodumene concentrate. Production was impacted by the limited availability of higher-grade ex-pit feed, which is expected to recover in the June quarter.

The crushing plant was completed and commissioned in the quarter, which will deliver significant cost savings.

Costs continue to be stripped out of the operation, with a focus on efficiency and appropriate resource allocation, including a fit-for-purpose mining fleet.

Shipped 26k dmt in the quarter at a realised spodumene concentrate price of US\$878/dmt on a 5.1% basis (US\$1,016/dmt on an SC6 equivalent basis).

WODGINA

	UNITS	Q3 FY24	QOQ VAR	PCP VAR
Wodgina: Spodumene concentrate⁴ (50% attributable basis from 18 October 2023, unless otherwise indicated. Previously 40%)				
Mined (100% basis)	k dmt	1,334	47%	84%
Produced (100% basis)	k dmt	98	(15%)	(11%)
Produced	k dmt	49	(11%)	12%
Shipped (100% basis)	k dmt	129	(10%)	5%
Shipped	k dmt	64	(1%)	32%
Shipped – SC6 equivalent	k dmt	60	(5%)	33%
Wodgina: Lithium battery chemicals (Attributable basis from 18 October 2023, unless otherwise indicated. Previously 40%)				
Produced	t	6,793	(0%)	109%
Sold	t	6,954	7%	362%

Ore mined increased 47% qoq as the on-going stripping activities in Stage 2 opened new mining fronts.

Attributable quarterly spodumene concentrate production was 49k dmt, which decreased 11% qoq due to a higher proportion of oxide feed that impacted plant recoveries. Feed quality in the June quarter is expected to improve as Stage 2 supplies fresh ore for the remainder of FY24. Attributable spodumene concentrate shipments in the quarter were 64k dmt, in line with the prior quarter. Overall, FY24 volumes are expected to be on the low end of guidance and costs at the upper end of guidance.

As per commentary at the half-year results presentation, all three trains will operate when lithium market conditions improve further.

Due to the prevailing pricing dynamics, spodumene concentrate produced in the quarter was not processed into lithium battery chemicals. Accordingly, spodumene concentrate spot sales resumed, with a total 68k dmt sold at a realised price of US\$974/dmt on a 5.6% basis (US\$1,028/dmt on an SC6 equivalent basis).

Year-to-date FOB Costs on a product basis is A\$930/dmt (A\$984/dmt on a SC6 equivalent basis).

There was production of 6.8kt of lithium battery chemicals in the quarter. Lithium battery chemical sales increased 7% qoq to 7.0kt at a realised price of US\$11,098/t (excluding VAT).

⁴ MinRes' equity interest in Wodgina increased from 40% to 50% following the completion of the Australian part of the MARBL JV restructure on the 18 October 2023.

EXPLORATION AND DEVELOPMENT ACTIVITY

IRON ORE

ONSLOW IRON PROJECT

Onslow Iron construction is expected to be delivered within budget. The project remains on track to deliver first ore-on-ship in June 2024. Key project updates and developments during the quarter include:

- **Ken's Bore mine site:** Drill, Blast and Load & Haul operations teams are operating at full capacity, with 9.4Mt of total material moved during the quarter.
- **Accommodation:** Ken's Bore construction camp is at full capacity and 480 of the 500 resort rooms have been delivered.
- **Airport:** Ken's Bore airport is fully operational with seven scheduled flights in and out of the site each week, including a weekly direct charter flight between Brisbane and the mine.
- **Road trains:** First convoy of Kenworth C509 prime movers fitted with autonomous technology delivered to Onslow. Truck maintenance facility workshop is structurally complete and internal fit-out continues.
- **Port:** Transshipping wharf was completed and the shiploader energised. Product storage shed and truck unloading facility structures were completed and port reclaimer was dry commissioned.
- **Transshippers:** First two transshippers, MinRes Coolibah and MinRes Airlie, in addition to the first two transhipper tugs, were delivered to the Port of Dampier in April 2024 and are expected to travel to the Port of Ashburton by the end of April 2024. Transshippers are scheduled for wet commissioning in early May 2024.
- **Dedicated haul road:** Works are progressing in line with the project's staged first ore plans, with sealing and asphaltting works well underway.
- **Exploration:** Reverse Circulation (RC) drilling continued across the Channel Iron Deposits (CIDs). In total, 5,424m of RC drilling (97 holes) was completed west of the active mining area at Ken's Bore, and 3,324m of RC drilling (74 holes) at Cardo Bore East.
- **RCGC:** Reverse Circulation Grade Control (RCGC) drilling continued across the Ken's Bore deposit, with 16,053 metres drilled across 413 holes.



Stacker and reclaimer assembly ongoing



Ken's Bore crushing plant Train 3



Haul road at Warrirda/Onslow Rd overpass



Ken's Bore Resort accommodation



First autonomous road trains delivered to Onslow



Product storage facilities at Port of Ashburton



Transhipping wharf installation completed



First two transhippers at the Port of Dampier

YILGARN HUB

A total of 8,804m was drilled across 65 holes in the quarter, focused on advancing Direct Ship Ore (DSO) targets through near-pit extension and green fields targets, including:

- Deception: A total of 1,710m drilled across 15 holes.
- Windarling: A total of 2,454m drilled across 12 holes.
- Mt Jackson J4: A total of 372m drilled across 12 holes.
- Koolyanobbing South: A total of 3,722m drilled across 34 holes.

Detailed geological mapping and reconnaissance work was undertaken across Iron Lion and Mt Dimer, contributing to the ongoing regional DSO exploration strategy.

CENTRAL PILBARA

Geological reconnaissance and ground truthing surveys were conducted for Ophthalmia and Wonmunna to evaluate future drill areas. The development of the Central Pilbara exploration strategy progressed through ongoing target generation, analysis and drill hole planning.

LITHIUM

MT MARION

Resource development activities focused on the extension and resource classification upgrades of the North and Central pits. North Pit drilling activities continued to test the potential for underground mining.

In relation to the underground mining assessment, a total of 9,652m of diamond core drilling was completed. An additional 336 metres of diamond core drilling was completed in the Central Pit area and west of North Pit.

The underground drilling program has been successful to date, with all holes demonstrating grade continuity of the sub-vertical pegmatite domain at depth. Several assay results indicated high-grade intercepts at increasing depths.

A total of 6,907m of RC drilling was completed, primarily 40x40m infill and extensional drilling at North pits, along with three holes completed around the Central pits. Drilling has shown continuity and increased Resource confidence at the North Pit extensions drill area. A single step-out drill hole has intercepted pegmatite to the north of currently modelled domains in the North Pit extensions.

A total of 1,064m of RC and 365m diamond drilling was completed as part of the geometallurgical drill program.

WODGINA

A total of 4,459m of RC drilling was completed in the quarter and resulted in 3,284 samples being sent for analysis. This drilling targeted key objectives, including extending known pegmatites at depth within the Stage 4 pit design, de-risking material to the northeast of Stage 2 and delineating mineralization extents to the northwest of the deposit.

ENERGY

PERTH BASIN

Following drilling of the Lockyer-5 conventional gas appraisal well in January 2024, drilling of the Lockyer-5 ST-1 gas development well commenced in early February 2024 and reached 4,574m measured depth relative to the rotary table (MDRT) on 2 March 2024. The Kingia Sandstone objective was successfully intersected at 4,424m MDRT.

Petrophysical analysis of Lockyer-5 ST-1 wireline logs highlighted exceptional results, including 27m of net gas pay with an average porosity of 18%.

Lockyer-5 ST-1 well testing commenced on 8 April 2024 which achieved an outstanding tubing constrained gas flow rate of 106 MMscf per day. The high gas flow rate was sustained for 15 minutes at an average flowrate of 104 MMscf per day, which is the highest stabilised flow rate on record in the Perth Basin. Analysis also confirms very clean gas characteristics with CO₂ levels at approximately 3%.

Drilling of the North Erregulla-2 (NE-2) oil appraisal well commenced on 20 March 2024 and the well reached 3,515m MDRT on 8 April 2024. The Dongara Sandstone at NE-2 was intersected at 3201m MDRT and was fully cored from 3206m MDRT over a 117m interval with good oil and gas shows observed to 3295m MDRT. Additional new oil pay has been identified on logs in the overlying secondary objective Arranoo Sandstone. A flow test of NE-2 is planned in May 2024, with samples to be taken for crude oil assays to determine the oil properties for future downstream processing.

During the quarter, the Company continued the assembly and upgrade of the MinRes Explorer rig to enable it to reach the 5,000m depths required in the Perth Basin. Recruitment of the rig crew is ongoing and deployment to the field remains on track for early July 2024.

The State Development Assessment Unit publicly advertised the development application for the Lockyer Conventional Gas Project in March 2024. Environmental Impact Assessment Part IV referral was also publicly advertised by the Environment Protection Authority in April 2024.

A Final Investment Decision is expected in Q4 FY24 but remains subject to WA Government agreement for partial export to support the investment. Engineering of the proposed gas processing facility is progressing according to plan and the long-lead equipment procurement process has commenced.

ENDS

This announcement dated 24 April 2024 has been authorised for release to the ASX by Mark Wilson, Chief Financial Officer and Company Secretary of Mineral Resources Limited.

CONFERENCE CALL

A quarterly results conference call will be held at **9:30am AWST on 24 April 2024**.

To register use this link: <https://web.lumiconnect.com/370834833> and enter meeting ID 370-834-833.

FURTHER INFORMATION

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About Mineral Resources

Mineral Resources Limited (ASX: MIN) (MinRes) is a leading diversified resources company, with extensive operations in lithium, iron ore, energy and mining services across Western Australia. With a focus on people and innovation, MinRes has become one of the ASX's best-performing companies since listing in 2006. For more information, visit www.mineralresources.com.au.

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OPERATING PERFORMANCE SUMMARY

	UNITS	Q3 FY24	Q2 FY24	Q3 FY23
Safety				
TRIFR		2.24	1.90	2.11
LTIFR		0.16	0.18	0.00
Mining Services				
Contract Tonnes	M wmt	69	72	52
Yilgarn Hub (100% attributable basis, unless otherwise indicated)				
Iron ore mined	k wmt	1,500	1,572	2,059
Iron ore produced	k wmt	1,883	2,032	2,078
Iron ore sales	k wmt	2,103	2,065	2,130
Lump weighting	%	26%	27%	29%
Fe grade	%	58.2%	58.3%	58.4%
Realisation	%	81%	95%	89%
Revenue	US\$/dmt	100.1	122.8	111.2
Moisture	%	5.9%	5.8%	5.4%
Revenue	A\$/wmt	140.9	177.2	154.4
Utah Point Hub (100% attributable basis, unless otherwise indicated)				
Iron ore mined	k wmt	2,087	2,276	2,947
Iron ore produced	k wmt	2,059	2,419	2,929
Iron ore sales	k wmt	2,432	2,748	2,416
Lump weighting	%	22%	16%	18%
Fe grade	%	58.1%	58.4%	57.8%
Realisation	%	78%	91%	85%
Revenue	US\$/dmt	95.7	116.4	106.3
Moisture	%	10.5%	12.0%	13.2%
Revenue	A\$/wmt	129.2	155.8	134.1
Total Iron Ore				
Iron ore sales	k wmt	4,534	4,813	4,546
Lump weighting	%	24%	21%	23%
Fe grade	%	58.1%	58.4%	58.1%
Realisation	%	79%	93%	87%
Revenue	US\$/dmt	97.8	119.2	108.7
Moisture	%	8.4%	9.3%	9.5%
Revenue	A\$/wmt	134.6	164.9	143.6

	UNITS	Q3 FY24	Q2 FY24	Q3 FY23
Mt Marion: Spodumene concentrate (50% attributable basis, unless otherwise indicated)				
Spodumene ore mined (100% basis)	k dmt	993	1,242	537
Spodumene concentrate produced	k dmt	91	83	60
Spodumene concentrate shipped	k dmt	76	86	62
Weighted average grade shipped	%	4.2%	4.2%	3.8%
Spodumene concentrate shipped – SC6 equivalent	k dmt	52	60	40
High grade product contribution	%	45%	40%	36%
Revenue	US\$/dmt	718	738	3,367
Wodgina: Spodumene concentrate (Attributable basis from 18 October 2023, unless otherwise indicated. Previously 40%)				
Spodumene ore mined (100% basis)	k dmt	1,334	907	725
Spodumene concentrate produced (100% basis)	k dmt	98	115	110
Spodumene concentrate produced	k dmt	49	55	44
Spodumene concentrate shipped (100% basis)	k dmt	129	142	122
Spodumene concentrate shipped	k dmt	64	65	49
Weighted average grade shipped	%	5.6%	5.8%	5.6%
Spodumene concentrate shipped – SC6 equivalent	k dmt	60	63	45
Spodumene concentrate shipped – spot sales	k dmt	68	N/A	N/A
Revenue	US\$/dmt	974	N/A	N/A
Wodgina: Lithium battery chemicals (Attributable basis from 18 October 2023, unless otherwise indicated. Previously 40%)				
Conversion rate	x	7.7	7.3	7.4
Lithium battery chemicals produced	t	6,793	6,798	3,246
Lithium battery chemicals sold	t	6,954	6,474	1,504
Lithium battery chemicals revenue (excluding VAT)	US\$/t	11,098	17,936	74,781
Bald Hill: Spodumene concentrate (100% attributable basis, unless otherwise indicated)				
Spodumene ore mined	k dmt	251	175	N/A
Spodumene concentrate produced	k dmt	30	26	N/A
Spodumene concentrate shipped	k dmt	26	20	N/A
Weighted average grade shipped	%	5.1%	5.6%	N/A
Spodumene concentrate shipped – SC6 equivalent	k dmt	22	18	N/A
Revenue	US\$/dmt	878	979	N/A