

Quarterly Exploration and Mining Activities Report

January to March 2019 (Q3 FY19)



Q3 Highlights

- Submissions were lodged with the relevant regulatory authorities in Australia and China in relation to the binding Asset Sale and Share Subscription Agreement between Mineral Resources Limited (ASX: MIN, MRL) and Albemarle Corporation (NYSE: ALB, Albemarle) regarding the sale of a 50% interest in the Wodgina Lithium Project. Completion of the transaction is still expected to occur during the 2019 calendar year (CY19)
- Construction of the Wodgina spodumene concentrate plant and associated non-process infrastructure progressed during the quarter with plant commissioning for train one (250,000 tonne per annum module) commenced during the quarter. The Mount Marion All-in-6% Concentrate Upgrade Project is in the advanced stages of completion with plant commissioning well-progressed
- The sale agreement with Neometals Limited (ASX: NMT, Neometals) for Jiangxi Ganfeng Lithium Co., Ltd (Ganfeng) and MRL to jointly and equally acquire Neometals' 13.8% share in the Mount Marion Lithium Project completed in March, bringing MRL's equity interest in the project to 50%
- During the quarter, MRL announced that the Farm-in and Joint Venture Agreement (FJVA) between Brockman Mining Limited (SEHK: 159; ASX: BCK; Brockman) and MRL became unconditional, marking the commencement of the farm-in period in relation to the Marillana Iron Ore Project in the Pilbara (ASX: 22/01/19)
- On 11 January 2019, MRL advised Hexagon Resources Limited (ASX: HXG) that it had earned its 51% interest in the McIntosh Graphite Project under the Joint Venture Agreement (JVA) effective as at 28 September 2018. Under the JVA, MRL must meet certain "end-dates" to retain its joint venture interest (see details below). MRL will provide all mining, processing and logistical services for the project under a life-of-mine Project Services Agreement. During Q3 FY19 metallurgical test work continued to develop knowledge required to optimise the concentrate flow sheets, with outcomes from modelling expected in Q4 FY19
- Iron ore shipments increased 41% over the prior quarter to 3.3 million tonnes (Mt) driven by the successful ramp up of Koolyanobbing
- Koolyanobbing achieved its target annualised run rate of 6Mtpa of iron ore production and plans have been developed to increase production to 8Mtpa by Q1 FY20
- Spodumene concentrate production from the Mt Marion project remained in line with Q2 FY19, shipping 111,287 wet metric tonnes (WMT) with 66% of output being high-grade 6% Li₂O product
- MRL Energy continued evaluation of various options in relation to permits EP 368 and EP389 during the quarter

Production and Commodity Shipments

'000 WMTs	Q3 FY19		Q2 FY19		Q3 FY18	
	PRODUCED	SHIPPED	PRODUCED	SHIPPED	PRODUCED	SHIPPED
IRON ORE						
Iron Valley	1,368	1,788	1,767	2,053	1,800	1,539
Koolyanobbing	1,303	1,518	560	292	-	-
Carina & J4	-	-	-	-	890	760
TOTAL IRON ORE	2,671	3,307	2,327	2,345	2,690	2,299
SPODUMENE						
Mount Marion ¹	107	111	115	94	105	86
TOTAL SPODUMENE	107	111	115	94	105	86
DSO LITHIUM						
Wodgina	-	-	40	0	1,159	956
TOTAL DSO LITHIUM	-	-	40	0	1,159	956
GRAND TOTAL	2,777	3,418	2,482	2,439	3,954	3,341

¹ Volume produced and shipped is presented as 100% for the Mt Marion project.

MRL's ownership interest in the Mt Marion project increased from 43.1% to 50% on 18 March 2019 (ASX: 18/03/19).

LITHIUM

Wodgina Lithium

'000 WMTs	Q3 FY19	Q2 FY19	Q3 FY18
LITHIUM DSO			
Mined	-	8	1,416
Produced	-	40	1,159
Shipped	-	-	956

Construction of the 750,000 dry tonne per annum spodumene processing plant, along with the associated crushing and non-process infrastructure upgrades, continued during the quarter. Plant commissioning activities for train one (250,000 tonne per annum module) progressed during the quarter. Spodumene concentrate product will be marketed by Albemarle pursuant to a marketing agreement pending finalisation of the Joint Venture between MRL and Albemarle.

Completion of the binding sale agreement with Albemarle in relation to the sale of a 50% interest in the Wodgina Lithium Project and formation of the joint venture (ASX: 14/12/18) is subject to remaining conditions precedent relating to regulatory approvals, including Foreign Investments Review Board (FIRB), Chinese State Administration for Market Regulation (SAMR) anti-trust approvals, and the consents of certain third parties with interests in the underlying tenements. Completion under the Sale Agreement is still expected during the 2019 calendar year.

Mt Marion Project

'000 WMTs	Q3 FY19	Q2 FY19	Q3 FY18
LITHIUM SPODUMENE			
Mined	757	738	737
Produced	107	115	105
Shipped	111	94	86

Volumes presented as 100% for the Mt Marion project. MRL operates 100% of the Mt Marion project, in which it owns a 50% interest effective 18 March 2019 (ASX: 18/03/19).

Mining continued in both C1 and N6 pits with total material movement of 5.1 million WMT achieved during the quarter. The mining activities provide ongoing access to the ore body to meet processing requirements. The processing plant's utilisation increased to 86%, up 1% from the previous quarter, however this was offset by a decrease in throughput rate from 332 tph to 325 tph. This has resulted in the beneficiated tonnes decreasing to 599,495 WMT compared to 627,049 WMT in the previous quarter.

Spodumene concentrate production improved against the previous quarter with a total production of 106,683 WMT with the proportion of high-grade (6%) spodumene concentrate down to 66% compared to 71% in the previous quarter. A total of 111,287 WMT was shipped during the quarter; an increase of 18% against the prior quarter shipments.

The Mt Marion Upgrade Project is nearing completion. Construction is complete and plant commissioning is underway, ramping up to full production by end of Q4 FY19.

A RC drilling program continued in January and February at Mt Marion, with 10,974m of the 15,770m planned now completed. This included approximately 6,200m of RC drilling focusing on exploration and resource extension holes. A resource model update is currently being worked on with results anticipated in Q4 FY19.

During the quarter, MRL announced the completion of the sale agreement executed with Neometals for MRL and Ganfeng to jointly and equally acquire Neometals' 13.8% equity interest in the Mt Marion Lithium Project, which saw MRL's equity interest increase from 43.1% to 50% (ASX: 18/03/19). The MRL-operated Mt Marion Lithium Project is a joint project between MRL (50%) and one of the world's largest lithium producers, Ganfeng (50%).

IRON ORE

Iron Valley

'000 WMTs	Q3 FY19	Q2 FY19	Q3 FY18
Mined	1,186	1,791	1,702
Produced	1,368	1,767	1,800
Shipped	1,788	2,053	1,539

Taking advantage of strong iron ore prices and on site fine stockpiles, 1.8Mt was shipped from Iron Valley during the quarter.

Mining continued in the C7 pits during the quarter for blended feed with groundwater inflows increasing with depth. Mining in C7 has concentrated on deepening sumps and pumping groundwater to dewater ore ahead of mining, though a significant proportion of ore is requiring further draining on drying pads prior to addition to crusher feed blend. C9 pit mining continued to provide low phosphate ore for blending. The C8 cutback continued through the month and is progressing as forecasted.

The Iron Valley crushing operations produced 1.4Mt of product for the quarter, performing below forecast due to fine damp feed being mined from the C7 pit. The demand for fines continued through the quarter with all produced fines shipped. The 1.8Mt of lump and fines product shipped for the quarter exceeded the forecast 1.2Mt, despite Tropical Cyclone Veronica causing delays late in March.

Koolyanobbing

'000 WMTs	Q3 FY19	Q2 FY19	Q3 FY18
Mined	1,591	1,167	-
Produced	1,303	560	-
Shipped	1,518	292	-

Ramp up continued at Koolyanobbing, with shipments of 1.5Mt, taking advantage of the strong iron ore prices.

Mining continued in the W7, W10 Open pits at Windarling with Stage 1 almost completed. The F pits at Koolyanobbing were brought into full production producing higher grade and lower phosphate material and have performed well against the resource model. The Deception facilities area is complete and in full production with first ore hauled in late March to the Koolyanobbing run-of-mine.

Crushing operations performed well, based on ore supply from the mine. All scheduled train services and shipping have been in line with forecast. During the quarter, planning commenced to increase production and shipping from Koolyanobbing to 8Mtpa.

MINING EXPLORATION AND DEVELOPMENT ACTIVITY

Kumina Iron Ore Project

During the previous quarter, MRL announced the completion of the acquisition of the Kumina Iron Ore Project (Kumina Project) from BCI Minerals Limited (ASX: BCI, BCI) (ASX: 211218). Under the terms of the Sale and Purchase Agreement, MRL paid A\$27 million to BCI and will pay a further A\$4 million to BCI when MRL achieves the first export of iron ore from the Kumina Project, and an additional A\$4 million 12 months after first export.

The Kumina Project is located in the West Pilbara region approximately 100km south of Karratha and has a JORC Inferred Mineral Resource of 78.3 million tonnes at 59.1% Fe at a 57% Fe cut-off (refer BCI ASX announcement 28/06/18). The acquisition of the Kumina Project is consistent with MRL's strategy of identifying new value-adding development opportunities and will enable MRL to leverage its existing workforce and logistics supply chain in the Pilbara, with the ore to be exported out of Port Hedland.

Work continues on project planning, with environmental studies continuing and drill programs being planned for Q4 FY19 to extend known resources and increase confidence in existing resources. Environmental studies will support the required regulatory approvals and assist in planning appropriate infrastructure development.

Marillana Iron Ore Project

During the quarter, MRL announced that the Farm-in and Joint Venture Agreement (FJVA) between Brockman Mining Limited (SEHK: 159; ASX: BCK; Brockman) and MRL became unconditional, marking the commencement of the farm-in period for the Marillana Iron Ore Project in the Pilbara (ASX: 22/01/19). In order for the FJVA to become unconditional, the parties were required to execute a Mine to Ship Logistics Agreement for the transportation of up to 30Mtpa of Marillana iron ore product via a light-rail system from the mine site to Port Hedland for the life of Marillana.

The Mine to Ship Logistics Agreement remains subject to a number of conditions precedent including MRL executing a Statement Agreement with the Western Australian Government, procuring all the leases and licences for the light rail system and port infrastructure within the inner harbour of Port Hedland, obtaining project finance and MRL's board making a final investment decision to proceed.

McIntosh Joint Venture

On 11 January 2019, MRL advised Hexagon Resources Limited (ASX: HXG) that it had earned its 51% interest in the McIntosh Graphite Project under the Joint Venture Agreement (JVA) effective as at 28 September 2018.

Under the JVA, MRL must meet certain "end-dates" to retain its joint venture interest, comprising:

- Completion of feasibility studies before 14 October 2019;
- Commence activities for the development of the project before 13 April 2020; and
- Achieving commercial production of graphite concentrate before 14 April 2021.

MRL will provide all mining, processing and logistical services for the project under a life-of-mine Project Services Agreement.

During Q3 FY19 metallurgical test work continued to develop knowledge required to optimise the concentrate flow sheets, with outcomes from modelling expected in Q4 FY19.

ENERGY

MRL Energy continued evaluation of various options in relation to permits EP 368 and EP 389 during the quarter.

All permits are in good standing.



Further Information

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Competent Person's Statement

The information is extracted from previous MIN ASX announcements available on the company website at www.mineralresources.com.au. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

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