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### H1 FY19 Key Headlines



### Our most significant building year since inception

- 1 Sold 50% of Wodgina to Albemarle
- Extensive progress made on Wodgina
  Spodumene Plant and Non Process Infrastructure
- 3 All-in 6% upgrade at Mt Marion 450ktpa
- 50:50 JV with Brockman at Marillana Iron Ore Project
- 5 Acquisition of Cliffs Yilgarn Iron Ore Project

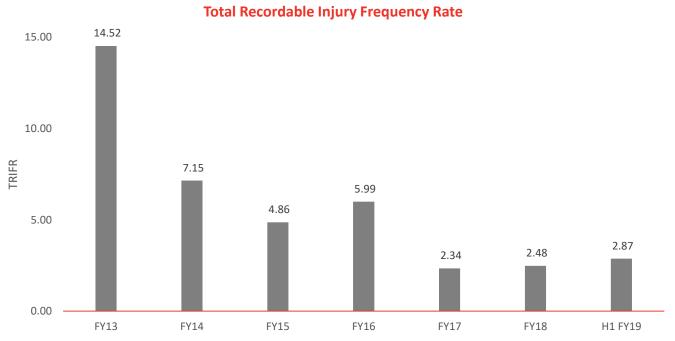
- 6 Acquired Kumina iron ore deposits
- Completed detailed design of Bulk Ore Shuttle System (BOSS); 3<sup>rd</sup> party design verification underway
- Carbon fibre dump approved for on-site testing at Koolyanobbing
- 9 Hydrogen/synthetic graphite test plant

### **Occupational Health & Safety**



We have sustained industry leading safety performance for the second consecutive year TRIFR <3.0 and LTIFR <0.5

TRIFR of 2.87<sup>1</sup>
LTIFR of 0.29<sup>2</sup>
Total employees: 3,399<sup>3</sup>



#### **Safety Initiatives**

- 52% increase in front line leaders qualified in safety management – MRL Steel Cap Programme
- Enhanced safety induction
- Implemented mobile real time reporting for lead safety indicators

#### **Company Culture**

- In-house team dedicated to managing culture
- We provide secure long-term employment founded on respect and trust

- L. Total Recordable Injury Frequency Rate calculations measure the total number of injuries (excluding first aid) per million hours worked as at 31 December 2018
- 2. Lost Time Injury Frequency Rate calculation measure the number of lost time injuries per million hours work as at 31 December 2018
- 3. Total employees as at 31 December 2018

# **Environment – Clean Energy Initiatives**



We remain focused on reducing our reliance on diesel fuel

- Natural gas
- LNG
- Battery storage
- Hydrogen

Emissions Reduction Initiative	Reduction in carbon emissions compared to diesel (tpa)
Mt Marion: 11.2MW LNG gas fired power station	2,760t CO <sub>2</sub>
Mt Marion Battery Energy Storage System (BESS) <sup>1</sup> : Requires 1 less gen set & achieves 12% reduction in fuel usage	1,380t CO <sub>2</sub>
Wodgina: 64MW natural gas fired power station	25,094t <sup>2</sup> CO <sub>2</sub>
Solar panels: 2,700 installed on Perth facilities	981t CO <sub>2</sub>







<sup>1.</sup> Battery Energy Storage System (BESS) is an ABB registered product name

<sup>2.</sup> Based on Wodgina load requirements of 40MW

### **Environment – Tailing Storage Facilities**



MRL has no tailing storage facilities with the exception of:

- Mt Marion: Tailings are disposed below ground in a disused mining pit
- Wodgina:
  - Recently completed construction of 3Mt tailings storage facility
  - MRL engaged a specialist tailings storage engineering company to:
    - provide tailings storage facility engineering and design
    - perform continuous on site inspection and verification services during construction
    - provide final certification that construction of facility is fully compliant



### **H1 FY19 Financial Performance**



Metric	H1 FY19 Result	Comparison to pcp <sup>1</sup>
Revenue	\$554.7m	↓ 35%
EBITDA (reported) <sup>2</sup>	\$71.7m	↓ 80%
EBITDA (normalised) <sup>2</sup>	\$102.0m	↓ 59%
Net profit after tax (NPAT)	\$13.1m	↓ 92%
NPAT (normalised) <sup>3</sup>	\$34.3m	↓ 63%
Diluted EPS	7.2cps	↓ 92%
Dividends declared	13cps	↓ 48%
Operating Cash Flow	\$21.6m	↓ 90%
Capex	\$494.2m	个 598%
Net Assets	\$1.237b	0.0%
Return on invested capital	9.8%	Rolling 12 months to 31 December 2018



- 1. Comparison to prior corresponding period (pcp) being H1 FY18
- 2. Normalised EBITDA of \$102m excludes fair value adjustments for Pilbara Minerals (PLS) investment a loss of (\$30.3m) for the period ended 31 December 2018 (in pcp this was a gain of \$93m)
- 3. Normalised NPAT of \$34.3m excludes the after tax adjustments for Pilbara Minerals (PLS) investment.

### **Profit & Loss**

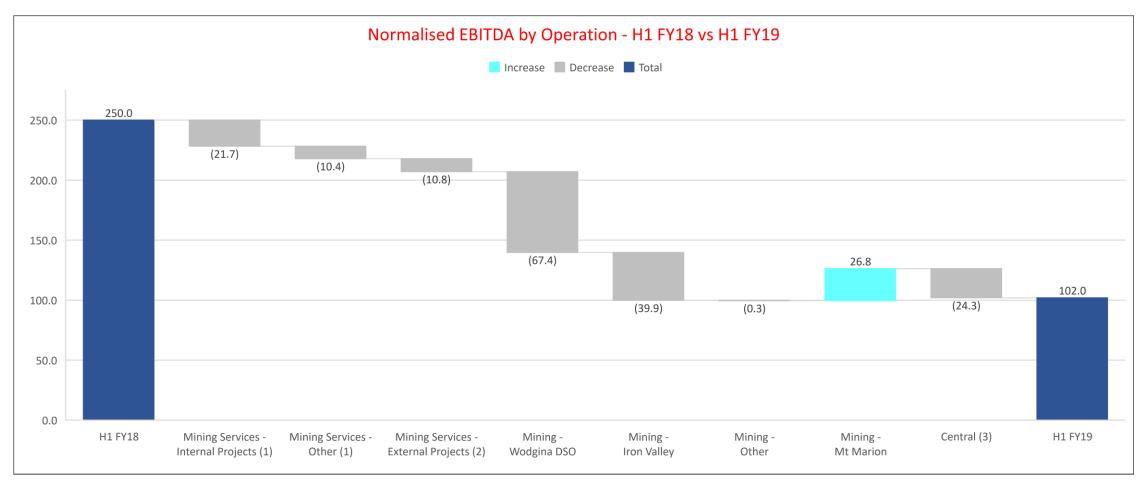


- Revenue of \$554.7m down 35% on prior corresponding period (pcp) and reported EBITDA of \$71.7m down 80% on pcp
- Decrease in Revenue and EBITDA on pcp driven primarily by:
  - decision to cease Wodgina lithium Direct Shipping Ore (DSO) sales in favour of extracting higher value via spodumene concentrate in future periods impacted both Mining Services and Commodity margins
  - delay in completion of Koolyanobbing acquisition and start up prevented continuity of Yilgarn operations following cessation at Carina
  - reduction in average realised price for Iron Valley iron ore products
  - increased logistics & shipping costs, predominantly due to higher prevailing fuel costs
- Normalised EBITDA of \$102m excludes fair value adjustment for Pilbara Minerals (PLS) investment – a non-cash loss of (\$30.3m) for the period ended 31 December 2018 (in pcp this was a gain of \$93m).
- Normalised NPAT of \$34.4m excludes after tax adjustment for Pilbara Minerals (PLS) investment.
- Effective tax rate of 30% for the half year.

(\$ million)	H1 FY18	H1 FY19
Revenue	854.5	554.7
Other income / (loss)	105.6	(29.3)
Operating Costs	(607.9)	(453.7)
EBITDA	352.2	71.7
EBITDA margin (%)	41.2%	12.9%
EBITDA (Normalised)	250.0	102.0
EBITDA (Normalised) margin (%)	29.3%	18.4%
Depreciation and amortisation	(59.1)	(45.8)
Impairment charges	(56.6)	0.0
EBIT	236.5	25.9
EBIT margin	27.7%	4.7%
Net finance costs	(3.2)	(7.1)
Profit before tax	233.3	18.8
Тах	(70.0)	(5.7)
Net profit after tax	163.3	13.1
Net profit after tax (normalised)	91.8	34.3
NPAT (normalised) margin (%)	10.7%	6.2%

### **Profit & Loss Movements (pcp)**





Note: This analysis excludes fair value adjustments.

- 1. 'Mining Services Internal Projects', and 'Mining Services Other' had their performance impacted by the deferment of mining activities at MRL owned mines in the half. The decision to cease DSO operations at Wodgina in favour of higher value beneficiation of spodumene concentrate, and the delays in the start-up of the Koolyanobbing mine after the planned closure of Carina, meant there was lower utilisation of mining services capacity in the half. Mining Services performance is expected to recover with the return of steady state operations across MRL's mining portfolio. 'Mining Services Other' includes negative variances for the Group's asset management business resulting from lower utilisation during the period, and additional internal allocations of Group overheads as a result of increased construction activity.
- 2. 'Mining Services External Projects' reflects the cessation of Mining Area C contract and lower volumes driven by client demand from a key contract.
- 3. Central segment EBITDA performance is predominantly non-cash and was driven by increased internal profit eliminations on those profits held in assets generated in the period (predominantly inventory stockpiles). This elimination balance will increase materially in periods of significant stockpile build, with the profit component only able to be recognised when the assets are realised externally.

### **Cash Flow**



- Net cash from operations decreased to \$21.6m, a decrease of 90% on pcp reflective of the development phase of the business
- \$80.4m working capital outflow as a result of:
  - commencement of Koolyanobbing operations, resulting in build up of inventory levels and receivables net of payables
  - increased inventories associated with Mount Marion and Wodgina mining operations
- Growth and investment capex of \$468.2m in H1 FY19 includes:
  - Wodgina spodumene concentrate plant and related infrastructure construction (\$330m)
  - Mt Marion beneficiation plant upgrade and related infrastructure (\$60m)
  - acquisition of Kumina tenements (\$27m)

(\$ million)	H1 FY18	H1 FY19
EBITDA	352.2	71.7
PLS shares FV adjustment	(93.0)	30.3
Movement in working capital	(37.7)	(80.4)
Net cash flow from operating activities before financing activities and tax	221.5	21.6
Maintenance capital expenditure	(10.8)	(26.0)
Growth & investment capital expenditure	(59.9)	(468.2)
Net free cash flow (before financing and tax)	150.8	(472.6)
Tax paid	(81.7)	(28.7)
Net interest paid	(3.0)	(5.9)
Dividends paid	(58.7)	(71.2)
Net proceeds from/(repayment of) borrowings	(68.3)	480.4
Gains from sale of PP&E, investments and other	4.6	(6.7)
Net increase / (decrease) in cash and cash equivalents	(56.3)	(104.8)

### **Balance Sheet**

- Net cash / (borrowings) position of (\$653.0m) at 31 December 2018 is reflective of the Company's significant development phase:
  - Plant and Equipment increase of \$437.7m, and
  - increase in Intangibles / Mine Development assets of \$64.6m
- Completion of 50% sale of Wodgina to Albemarle will result in Company moving back to net cash positive position (cash receipt of US\$1.15bn¹)
- Based on advice received, completion dependent on FIRB<sup>2</sup> approval (expected within one to three months) and Chinese regulatory<sup>3</sup> approval (three to nine months)
- Wodgina concentrate sales expected to generate free cash flow from H1 FY20
- Inventory increased by \$42.3m primarily driven by ramp up of Koolyanobbing project with stockpiling of iron ore prior to first shipment in December 2018
- Plant and equipment continues to exclude significant inventory of immediately accessible new and second hand equipment, spare parts and consumables, that can be used to reduce future costs of building and maintaining Build Own Operate projects

(\$ million)	FY18	H1 FY19
Current assets		
Cash and cash equivalents	240.4	136.2
Trade and other receivables	101.8	123.1
Inventories	132.2	174.5
Current tax asset	33.6	57.6
Other current assets	14.5	34.6
Total current assets	522.6	526.0
Non-current assets		
Plant and equipment	972.5	1,410.2
Deferred tax assets	38.1	46.8
Intangibles and mine development	433.8	498.4
Other non current assets	118.4	110.7
Total non-current assets	1,562.8	2,066.1
Total assets	2,085.3	2,592.1
Current liabilities		
Trade and other payables	261.6	254.4
Borrowings	63.9	72.6
Other current liabilities	49.3	45.1
Total current liabilities	374.7	372.1
Non-current liabilities		
Borrowings	175.4	716.6
	64.9	90.7
Provisions		
Provisions Deferred tax liability	165.7	174.8
	165.7 <b>406.1</b>	174.8 <b>982.1</b>
Deferred tax liability		

511.2

774.1

1,304.6

19.3

507.7

711.5

1,237.9

18.7

Issued capital

Other

**Retained profits** 

**TOTAL EQUITY** 

#### Note:

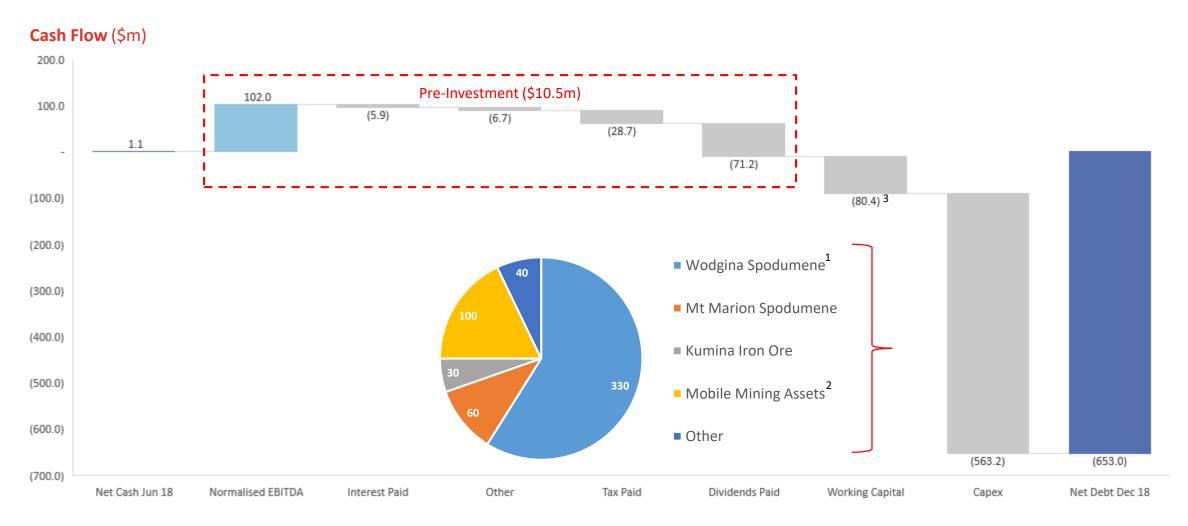
- Refer MIN ASX announcement 14/12/2018
- Australian Foreign Investment Review Board
- . State Administration for Market Regulation (SAMR)



# **Group Net Debt Waterfall**

# MINERAL RESOURCES

### Significant investment in growth projects in period



- 1. Includes capitalised finance charges of \$12m. Forecast outturn capex excluding capitalised finance charges currently in line with \$610m budget (MIN ASX:24/7/2018).
- Supporting both current and growth projects.
- 3. Primarily increased inventory at Koolyanobbing, RIM and Wodgina, together with increased receivables at Koolyanobbing.





# **Operational Update**



### Our Business: Key to our success

The foundation of our business has been built from a strong work ethic. We are contractors at heart. This drives our capability and success across our business in dealing with commodities and ore bodies

#### Our business consists of three areas



## **Our Business: Mining Services**



### **Mining Services**

Delivers annuity style earnings through:

- Crushing
- Processing
- Mining
- Bulk haulage
- Site Services

### **Supply Chain Infrastructure**

- Strategic port allocations at:
  - Kwinana
  - o Esperance and
  - Utah Point
- Road train network in Northwest WA
- Rail system in Southern WA
- Developing light rail transport system

#### **Innovation**

- Delivering range of innovative projects, focused on lowest quartile costs:
  - Carbon fibre dump truck trays
  - BOSS light weight rail system
  - Hydrogen & synthetic graphite production







### **Our Business: Commodities**



### **Commodity Project Model**

- Acquire joint ownership of ore bodies in partnership with explorers:
  - MRL funds & operates Life-of-Mine (LOM), Build Own Operate mining services contract and takes substantial ownership of the ore body

#### **Iron Ore**

- Producer of iron ore:
  - Yilgarn Koolyanobbing
  - o Pilbara Iron Valley
- MRL awarded Life-of-Mine mining services contracts

#### Lithium

- One of the world's largest owners of hardrock lithium units:
  - 100% of Wodgina, reducing to 50%
  - 43.1% of Mt Marion, increasing to 50%<sup>1</sup>
- MRL awarded Life-of-Mine mining services contracts



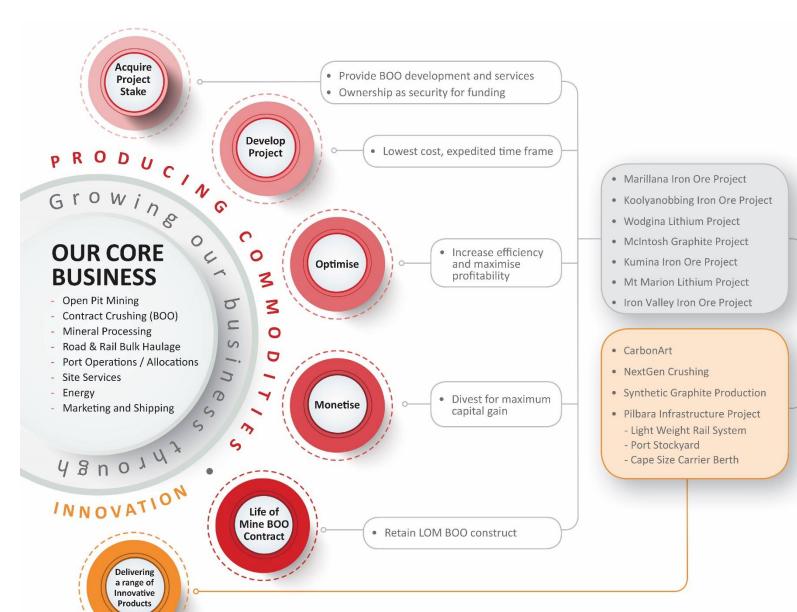




1 Refer MIN ASX announcement 21/12/2018 16

### **Our Business Model**





### Partner

**Benefits** 

- Project delivered quickly, on time, on budget
- Lowers Opex

**Financial** 

#### Innovation

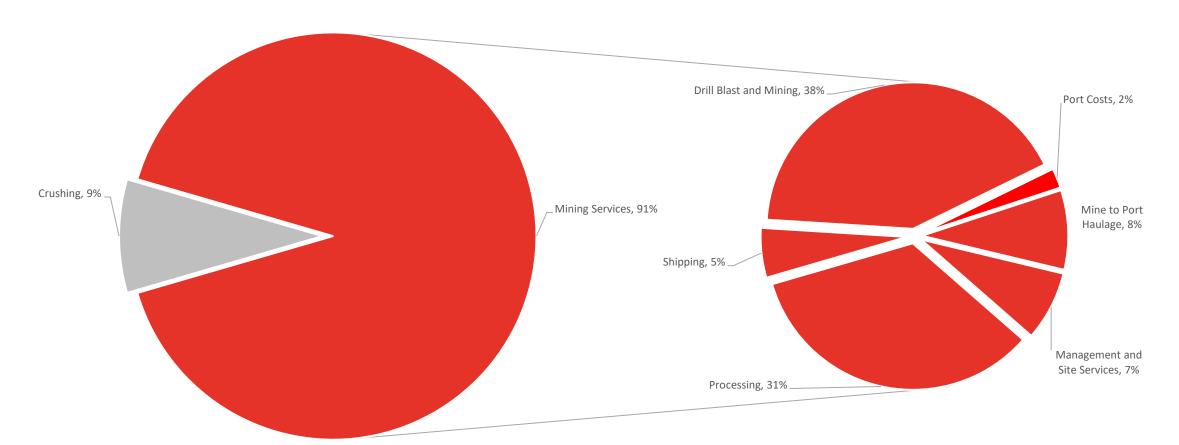
- · Access to MRL innovation
- Lowers Opex and increases value

# **Evolution of Mining Services Business Model**



#### **Traditional Business Model**

#### **Profit Share Business Model**



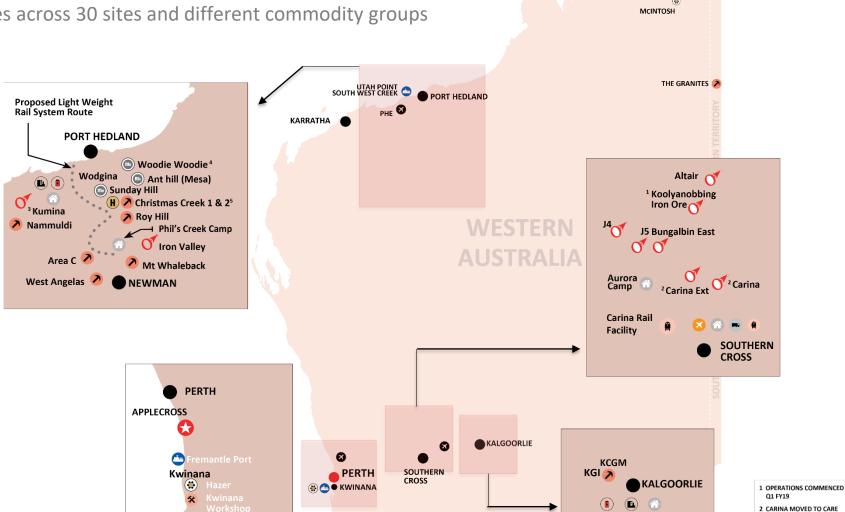
FY18 Crushing Revenue \$AU193m

FY18 Profit Share Projects Revenue \$AU871m

# **Operational footprint**

MRL provides mining services across 30 sites and different commodity groups

Rockingham



ESPERANCE

Esperance Port

KUNUNURRA

MT MARION

KEY GRAPHITE O' IRON ORE LITHIUM MANGANESE **CSI CRUSHING** WORKSHOP **SEA PORT** TRANSPORT 0 AIRPORT **AIRSTRIP** CAMP OFFICE POWER STATION RAIL FACILITY HISTORICAL PROJECT

AND MAINTENANCE Q4 FY18

4 WOODIE DIVESTED. SEE ASX

RELEASE 4 MARCH 2014 5 CONSTRUCTED ON AN EPC OR BOOT BASIS

3 ACQUISITION ANNOUNCED OCT 2018,

SUBJECT TO APPROVAL AND COMPLETION

# **H1 FY19 Mining Services Performance**



### **Crushing**

- 6Mt crushing contract commenced at Koolyanobbing
- Pilgangoora NextGen plant operating to design expectations

### **Construction**

- Bulk of construction on Wodgina spodumene project undertaken
  - \$330M in capex
  - Peak construction workforce of 600
- Completed construction of Mt Marion all-in 6% upgrade
- Commenced commissioning

### **Energy**

- 6,600 square kilometres of exploration tenements in the Perth Basin
- Progressed exploration and approvals for drilling targets

### Mining

- Total Material Moved: 28.6Mwmt
- 21 diggers
- 78 dump trucks
- Mine design & planning commenced at Marillana

### **Site Services**

- Koolyanobbing: life-of-mine agreement
  - 400 rooms
- Wodgina: life-of-mine camp and airport services agreement
  - 850 rooms

### **Supply Chain Logistics**

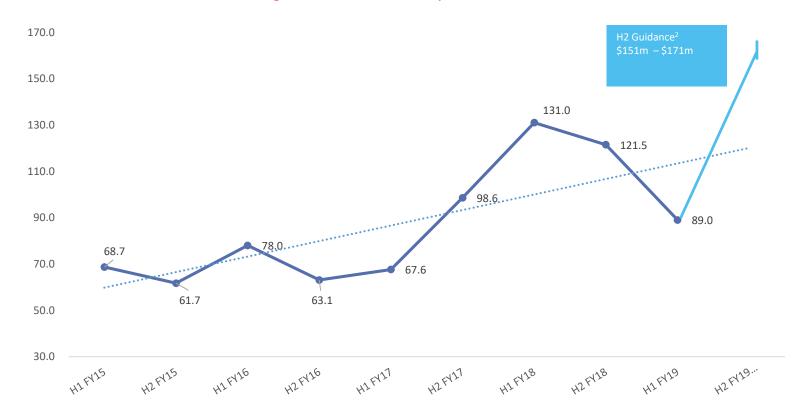
- 5.7Mwmt Ore Hauled
  - 0.5M by rail
  - 5.2M by road train
- 4.6Mwmt total shipped
- Recommenced Yilgarn rail operations & commenced exporting from Port of Esperance

### **FY15 – FY19 Mining Services EBITDA Performance**



- Earnings in H2 are expected to increase as mining services under life of mine (LOM) contracts continue to ramp up at three internal sites
- This increase is expected to be sustainable in future periods as the LOMs range from four to more than thirty
  years

#### Mining Services EBITDA<sup>1</sup> - by Half - FY15 to FY19



#### Motos

<sup>.</sup> Normalised to exclude construction

### **H1 FY19 Commodities Performance**



### Lithium

#### Mt Marion

- 186kwmt spodumene concentrate delivered
  - 138kt of 6%
  - 48kt of 4%
- average price of A\$1,204.90 / wmt achieved
  - A\$1,341 / wmt for 6%
  - A\$753 / wmt for 4%
- Average cost of A\$594.20 / wmt CFR for all tonnes shipped

### **Iron Ore**

### Koolyanobbing

- First shipping commenced in Dec 2018 with 300Kt exported
- A\$81.10 average price / wmt achieved
- A\$83.50 CFR cost / wmt shipped during start up phase

### Wodgina

- 420kwmt of DSO shipped
- DSO operation shut down

### **Iron Valley**

- 3.7Mwmt shipped
- A\$63.96 average price / wmt achieved
- A\$63.21 CFR cost / wmt shipped

- Revenue / wmt shipped figures include prior year revenue adjustments from finalization of forward contract pricing based on the Platts Index for FY18 shipments, and adjustments to shipping revenue for the application of AASB15 due to the timing of shipments reaching their destination ports.
- CFR Costs / wmt shipped figure includes adjustments to shipping costs for the application of AASB15 due to the timing of shipments reaching their destination ports.
- Costs include all costs to shipment destination, including mining infrastructure service agreements with MRL Group entities and Royalties, excluding depreciation and amortization

### **Commodity Performance – Iron Ore at Iron Valley**



- On-going steady state production at Iron Valley during the period
- Decreased EBITDA margins from:
  - Higher mix of fines to lump sales at lower overall realisable revenues
  - Continuation of higher prevailing market penalties for impurities
- Despite significant reserves, mine is marginal at prices achieved during H1 due to orebody quality issues and resulting impurity discounts & penalties

Iron Valley		1H FY17	2H FY17	FY17	1H FY18	2H FY18	FY19	1H FY19
Iron Ore - Lump - tonnes exported	million WMT	2.2	2.2	4.4	2.0	2.2	4.2	1.9
Iron Ore - Fines - tonnes exported	million WMT	2.0	1.5	3.6	1.0	1.0	2.0	1.7
Total Tonnes exported	million WMT	4.2	3.8	8.0	3.1	3.1	6.2	3.7
Iron Ore - Lump - Average Iron Content on exports	% Fe	60.0%	59.9%	59.9%	60.2%	59.6%	59.9%	60.1%
Iron Ore - Fines - Average Iron Content on exports	% Fe	57.9%	57.9%	57.9%	58.0%	57.6%	57.8%	58.3%
Weighted Average Revenue <sup>1</sup>	A\$/WMT Shipped	79.9	67.3	74.0	73.3	60.7	66.9	64.0
Adjusted Platts Index (adj for moisture and Fe grade) <sup>2</sup>	A\$/WMT	80.9	91.3	86.3	81.8	85.0	83.3	85.0
Weighted Ave. Realised price as a % of Adjusted Platts Index	%	99%	74%	86%	90%	71%	80%	75%
CFR Costs <sup>3,4</sup>	A\$/WMT Shipped	56.1	57.5	56.8	59.3	63.9	61.6	63.2
EBITDA margin	A\$/WMT Shipped	23.8	9.9	17.2	14.0	-3.1	5.3	0.8

- 1. Revenue / wmt shipped figure includes prior year revenue adjustments, and adjustments for the application of AASB15. For H1 FY19 this includes:
  - prior year revenue adjustments from finalization of forward contract pricing based on the Platts Index for FY18 shipments amounting to \$0.59 / wmt shipped
  - AASB 15 shipping revenue adjustment providing a loss of (\$1.24) / wmt shipped for shipments which had not yet reached their destination port at reporting date
- 2. The Adjusted Platts Index is calculated as the (62% Platts Index) x (average Fe content (%) of the ore sold / 62% Fe content) x (100% minus the average moisture rate (%) of the ore sold), converted to AUD at the average FX rate.
- 3. CFR Costs / wmt shipped figure includes adjustments for the application of AASB15. For H1 FY19 this includes:
  - AASB 15 shipping cost adjustment providing a benefit of \$1.69 / wmt shipped for shipments which had not yet reached their destination port at reporting date
- 4. Costs include all costs to shipment destination, including mining infrastructure service agreements with MRL and Royalties, excluding depreciation and amortisation

# **Commodity Performance – Iron Ore at Koolyanobbing**



- Koolyanobbing Project ramped-up during period with first mining activity commenced in September 2018
- Project start up costs in line with expectations however delay in first export shipments to December 2018 resulted in disproportionately higher aggregated operating costs to revenue during period
- On schedule to achieve steady state operations during H2 FY19, with steady state CFR costs expected to be similar to Iron Valley although product doesn't have the impurity levels of Iron Valley

Koolyanobbing		FY18	1H FY19
Iron Ore - Lump - tonnes exported	000 WMT	0.0	55.0
Iron Ore - Fines - tonnes exported	000 WMT	0.0	237.3
Total Tonnes exported	000 WMT	0.0	292.3
Iron Ore - Lump - Average Iron Content on exports	% Fe	0%	59.7%
Iron Ore - Fines - Average Iron Content on exports	% Fe	0%	58.6%
Weighted Average Revenue <sup>1</sup>	A\$/WMT Shipped	0.0	81.1
Adjusted Platts Index (adj for moisture and Fe grade) 2	A\$/WMT	0.0	87.2
Weighted Ave. Realised price as a % of Adjusted Platts Index	%	0%	93%
CFR Costs <sup>3,4</sup>	A\$/WMT Shipped	0.0	83.5
EBITDA margin	A\$/WMT Shipped	0.0	-2.4

- 1. Revenue / wmt shipped figure includes adjustments for the application of AASB15. For H1 FY19 this includes:
  - AASB 15 shipping revenue adjustment providing a loss of (\$11.23) / wmt shipped for shipments which had not yet reached their destination port at reporting date.
- 2. The Adjusted Platts Index is calculated as the (62% Platts Index) x (average Fe content (%) of the ore sold / 62% Fe content) x (100% minus the average moisture rate (%) of the ore sold), converted to AUD at the average FX rate.
- 3. CFR Costs / wmt shipped figure includes adjustments for the application of AASB15. For H1 FY19 this includes:
  - AASB 15 shipping cost adjustment providing a benefit of \$17.89 / wmt shipped for shipments which had not yet reached their destination port at reporting date.
- 4. Costs include all costs to shipment destination, including mining infrastructure service agreements with MRL and Royalties, excluding depreciation and amortization.

### **Commodity Performance – Lithium at Mt Marion**



- Improved yields and recovery resulted in increased overall production of 6% concentrate at Mt Marion and higher realised revenues
- Higher revenue, marginally offset by slightly increased costs per wet metric tonne due to increased total material movement
- In H2, CFR costs are expected to increase marginally to recover the cost of the Ai6 upgrade

Mt Marion Project - 100% interest		H1 FY18	H2 FY18	FY18	H1 FY19
6% Tonnes exported	000 WMT	109	101	209	138
4% Tonnes exported	000 WMT	93	80	173	48
Total Tonnes exported	000 WMT	202	181	382	186
Weighted Average Revenue <sup>1</sup>	A\$/WMT Shipped	808.9	956.3	878.6	1,204.9
CFR Costs <sup>2,3</sup>	A\$/WMT Shipped	559.8	593.6	575.8	594.2
EBITDA Margin	A\$/WMT Shipped	249.1	362.7	302.8	610.7

#### Notes:

This table represents the result of the Whole of the Mt Marion project of which the Company owns a 43.1% share. Ownership is expected to increase to 50% in February 2019 (MIN ASX: 21/12/2018)

- 1. Revenue / wmt shipped figure includes revenue adjustments in finalising prior year provisional pricing, and adjustments for the application of AASB15. For H1 FY19 this includes:
  - No prior year revenue adjustments from finalisation of FY18 provisional pricing
  - AASB 15 shipping revenue adjustment decreasing revenue by (\$5.56) / wmt shipped for shipments which had not yet reached their destination port at reporting date.
- 2. CFR Costs / wmt shipped figure includes adjustments for the application of AASB15. For H1 FY19 this includes:
  - AASB 15 shipping cost adjustment providing a benefit of \$5.05 / wmt shipped for shipments which had not yet reached their destination port at reporting date.
- 3. Costs include all costs to shipment destination, including mining infrastructure service agreements with MRL and Royalties, excluding depreciation and amortization.

### Wodgina Lithium Project – Overview of lithium resource



#### Wodgina is at the epicentre of the Pilbara hard rock lithium province

### **Wodgina Ore body**

- Ore body approximately 1.8km by 1.2km and greater than 500m deep
- We have drilled 8 holes below 500m, as deep as 620m, all in ore and above average grade
- Conservative recovery rate of 65% (based on extensive metallurgical lab testing)
- Resource of 259.2Mt @ 1.17%  $\rm Li_2O$  with a reserve of 151.9Mt @ 1.17%  $\rm Li_2O^1$

#### **Wodgina Spodumene Concentrate Production**

- Acquisition of Wodgina mine completed in August 2016
- First spodumene concentrate expected to be produced within three years following acquisition



### **Commodity Performance – Lithium at Wodgina**

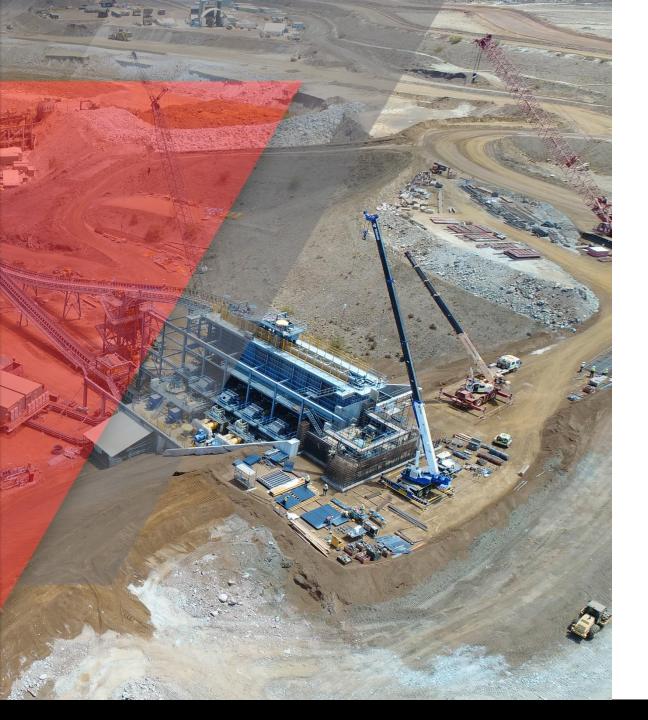


- Decision to cease Wodgina DSO sales in favour of extracting higher value via spodumene concentrate in future periods
- Average costs in the period impacted by significantly lower volume of ore shipped
- Construction of spodumene concentrate plant on schedule with first ore expected Q3 FY19 & first shipments targeted for Q4 FY19
- In H2, Wodgina mining activities are expected to be approximately breakeven based on guidance assumptions previously noted<sup>4</sup>

Wodgina Project		H1 FY18	H2 FY18	FY18	H1 FY19
DSO Tonnes exported	000 WMT	1,772	1,710	3,481	422
Weighted Average Revenue <sup>1</sup>	A\$/WMT Shipped	148.7	145.3	147.0	125.9
CFR Costs <sup>2,3</sup>	A\$/WMT Shipped	113.2	80.1	96.9	136.7
EBITDA Margin	A\$/WMT Shipped	35.5	65.2	50.1	-10.7

#### Note

- 1. Revenue / wmt shipped figure includes prior year revenue adjustments, and adjustments for the application of AASB15. For H1 FY19 however there were no prior year revenue adjustments from finalization of FY18 shipments with forward contract pricing, or AASB15 shipping revenue adjustments due to timing of shipments reaching their destination ports.
- 2. CFR Costs / wmt shipped figure includes adjustments for the application of AASB15. For H1 FY19 however there were no shipping cost adjustments.
- 3. Costs include all costs to shipment destination, including mining infrastructure service agreements with MRL and Royalties, excluding depreciation and amortization.
- 4. Refer to Company ASX announcement 22 November 2018.





# **Strategic Growth Initiatives**

# **H1 Strategic Investments**



### Positioning for the Future

Commodity	Project	Investment	Strategic Rationale	Percentage Ownership
Lithium	Wodgina	Partnership with Albemarle Corporation: sale of 50% for US\$1.15B <sup>1</sup> Sale completion subject to regulatory conditions and approvals.	Deliver value from past investments Reduce risk of exposure to high-growth industry Life of mine offering to strengthen annuity income streams Partner with expertise in lithium hydroxide plant technology and marketing	50:50 JV
	Mt Marion	Upgrading to 450Ktpa all in 6%  Conditional acquisition of half of Neometals remaining 13.8% ownership of Mt Marion/RIM - \$51.9m <sup>2</sup>	Maximising quality, sale ability and realized price of ore body  Consistent with our strategy of identifying value-adding opportunities in the lithium sector	50%, upon completion
Iron Ore	Kumina	Acquisition from BCI Limited: \$27m <sup>3</sup> Further \$4m payable on export of first ore and final \$4m 12 months after first export	Consistent with our strategy of identifying new value-adding development opportunities to enable us to remain a junior iron ore producer in the Pilbara	100%
	Marillana	Farm-in and Joint Venture Agreement with Brockman Mining Limited <sup>4</sup> Farm-in of \$250,000 within 6 months	Pipeline of work for Mining Services Business. Strengthen annuity income streams Mine to Ship Logistics Agreement, subject to conditions, underpins Pilbara Infrastructure Project	Upon satisfaction of Farm-In obligation 50:50 JV to develop mine
Graphite	McIntosh	Executed Joint Venture Agreement with Hexagon <sup>5</sup> Farm-In expenditure of \$300,000	High quality graphite project with low-cost entry	51%, on confirmation of completion of expenditure

<sup>1.</sup> Wodgina Lithium sale (MIN ASX: 14/12/2018); 2. Mt Marion additional equity (MIN ASX: 21/12/2018); 3. Kumina Iron Ore Project completion of acquisition (MIN ASX: 21/12/2018); 4. Marillana iron ore JV (MIN ASX: 22/1/2019); 5. Hexagon Resources Limited (ASX 8/11/2018)

# **H2 FY19 Mining Services Outlook**



### **Crushing**

- Approx. 35Mt of new crushing volumes being negotiated or tendered
- Discussions to double output at two of our existing sites

### Mining

- Ramp up to full mining operations at Koolyanobbing
- Mobilise to Wodgina for mine startup



### Construction

#### Wodgina

- Complete construction
- Commence commissioning

#### Mt Marion

- Complete commissioning
- Ramp up to name plate capacity
- Upgrade bore fields & workshop





### **H2 FY19 Planned Commodities Production**



### Lithium

#### Mt Marion

- Produce 232kwmt made up of:
  - 216kt of 6%
  - 16kt of 4%
- Export +200kwmt made up of:
  - 189kt of 6%
  - 15kt of 4%
- Expect to meet name plate capacity during Q4 FY19 (450kdmt per annum)

### **Iron Ore**

### Koolyanobbing

• Export: 2.9Mwmt

— Lump: 1.3Mwmt

— Fines: 1.6Mwmt

• Annual Run Rate: 6Mwmt per annum

### Wodgina

- Production: approx. 70kwmt spodumene
- Export: 60kwmt

### **Iron Valley**

- Export: 3.6Mwmt
  - Lump: 1.2Mwmt
  - Fines: 2.4Mwmt
- Expect discounts for quality and impurities to continue

### **H2 FY19: Wodgina Lithium Project Update**



### **Construction Progress**

- Crushing Plant:
  - Complete construction
  - First ROM ore into crusher on 22 February 19
- Train 1:
  - Commence commissioning February 19
  - First ore mid-March 19
- Train 2:
  - Commence commissioning April 19
  - First ore May 19
- Train 3:
  - Commence commissioning June 19
  - First ore July 19
- ~ 8 weeks per train to go from 0 to 80% nameplate capacity
- Power station complete
- Commence commissioning 10 inch gas pipeline April 19

#### **Albemarle Joint Venture**

- Wodgina sell down subject to:
  - Australian Foreign Investment Review Board approval
  - China State Administration for Market Regulation approval
- Preparing for JV operational readiness



#### **Lithium Hydroxide Plant**

Aim to complete majority of design by June 19

### **H2 FY19: Mt Marion Lithium Project Update**



#### **6% Upgrade Project**

- Commenced commissioning of flotation plant January 19
- On target to achieve first product March 19
- Upgrades to bore fields and workshops complete
   June 19

#### **RIM Joint Venture**

- All product now shipped out of Esperance
- Transition to 50:50 JV with Ganfeng through buy out of Neometals shareholding<sup>1</sup>



### **CY19 Primary Focus**



- 1 Complete the construction at Wodgina and achieve name plate production of 750kt
- Complete sale of 50% interest in Wodgina Lithium Project to Albemarle and commence JV operations
- 3 Complete Mt Marion construction and achieve name plate production of 450kt
- 4 Complete installation and operation of 4.2km Bulk Ore Shuttle System demonstration track
- 5 Deliver crushing opportunities





# **Project Pipeline**

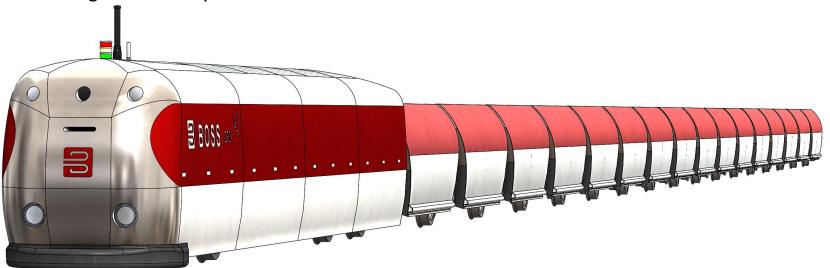
- 1 Bulk Ore Shuttle System
- 2 Marillana & Kumina Iron Ore Projects
- 3 McIntosh Graphite Project
- 4 Carbon Fibre & Synthetic Graphite Projects

# Bulk Ore Shuttle System – (BOSS)

# MINERAL RESOURCES

### A New Era of Haulage

- BOSS is an important addition to MRL's mining services business
- BOSS is a JV between MRL & Destec
- BOSS will connect:
  - stranded ore bodies to existing mining hubs
  - deposits to ports
- It will be marketed on a build, own, operate basis in conjunction with MRL crushing business and create long-term annuity streams



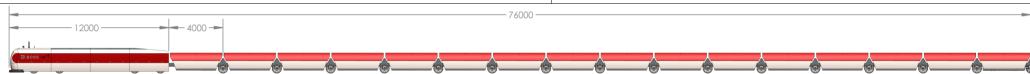
1. Subject to approvals, test results and financing

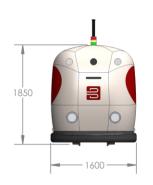
# Bulk Ore Shuttle System – (BOSS)

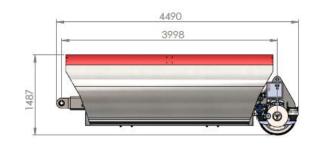


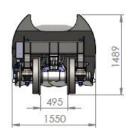
### **Overview of Shuttle Specification**

Shuttle Payload	≥120 T
Number of Power Cars	1
Number of Payload Wagons	≥16
Payload Wagon Capacity	≥7.5 T
Electric Motors to Drive Wheels	4
Duty Generator to Peak Load Backup	2
Maximum Speed (Governed)	90 km/h





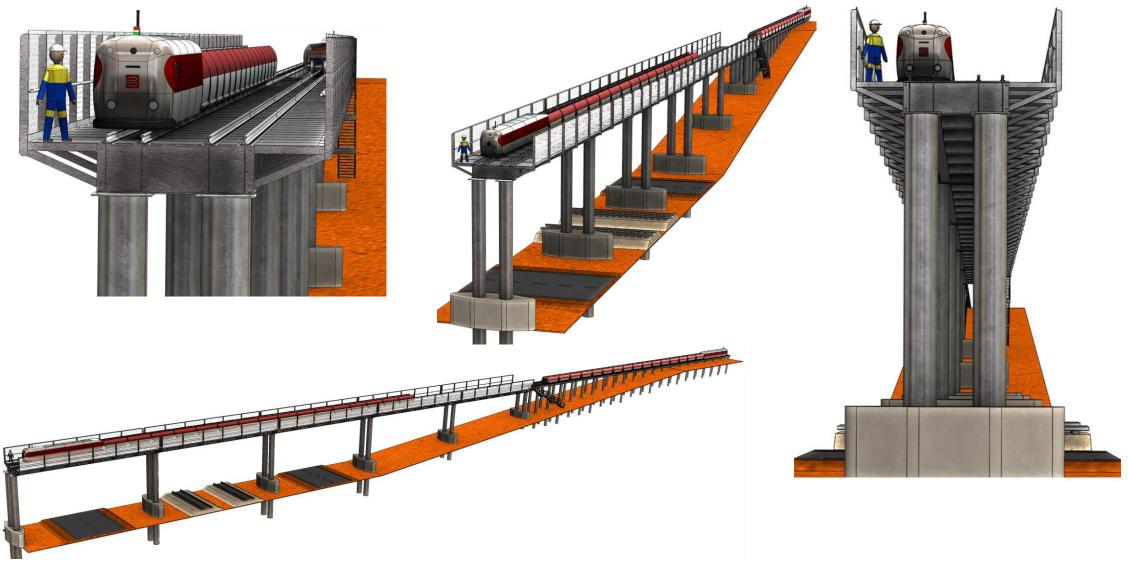




# Bulk Ore Shuttle System – (BOSS)



### **Overview of Track Infrastructure**



### **Iron Ore Project Update**

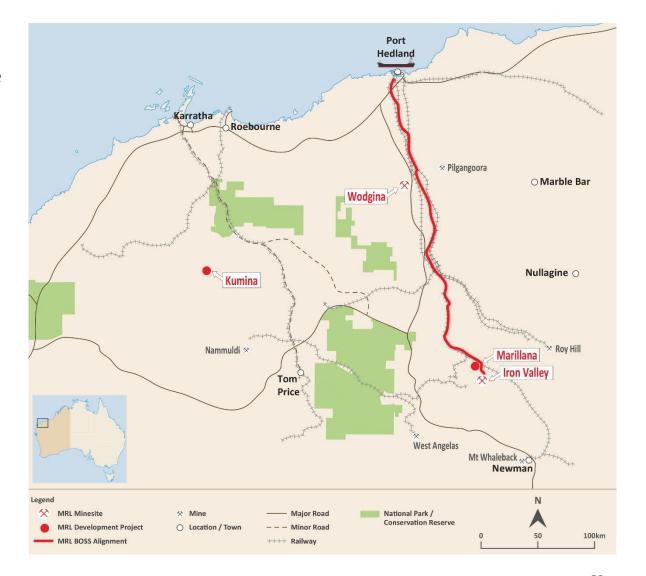


#### **Marillana Iron Ore Project**

- Farm-in and Joint Venture Agreement unconditional<sup>1</sup>
- JV to build, own, operate mining, crushing, processing & site infrastructure
- MRL to build, own and operate the rail and port infrastructure for life of mine

#### **Kumina Iron Ore Project**

- Completed the acquisition of Kumina Iron Ore Project<sup>2</sup>
- Continuing substantial exploration with substantial targets identified
- Progressing all environmental and planning approvals
- Inferred Resource 78.3Mt @ 59.1% Fe<sup>3</sup>
- Operations expected to commence within approx. 2 years



Notes:

MIN ASX: 21 December 2018
 BCI ASX: 28 June 2018

<sup>1.</sup> MIN ASX: 22 January 2019

# **McIntosh Graphite Project**



- Joint venture agreement<sup>1</sup> finalised
- Current resource stands at 21.3 million tonnes @ 4.5% total graphite carbon (TGC)<sup>2</sup>
- Pre-feasibility study due Q3 FY19



### **Innovation**



#### **Carbonart Carbon Fibre Dump Truck Trays**

- Carbon fibre tray #3 completed
- Mobilised to Koolyanobbing in February 2019
- Carbon fibre trays will reduce mining costs by 10-15%
  - Caterpillar 150t lined steel tray weight: 31t
  - Carbon fibre tray weight: 10t

#### Hydrogen and Synthetic Graphite production using Hazer IP

- Continuous feed pilot plant under construction at MRL's Kwinana facility
- Commissioning on target for March 2019
- Plan to commence construction of a 1,000 10,000tpa plant following successful testing of pilot plant









# Financial Guidance and Assumptions



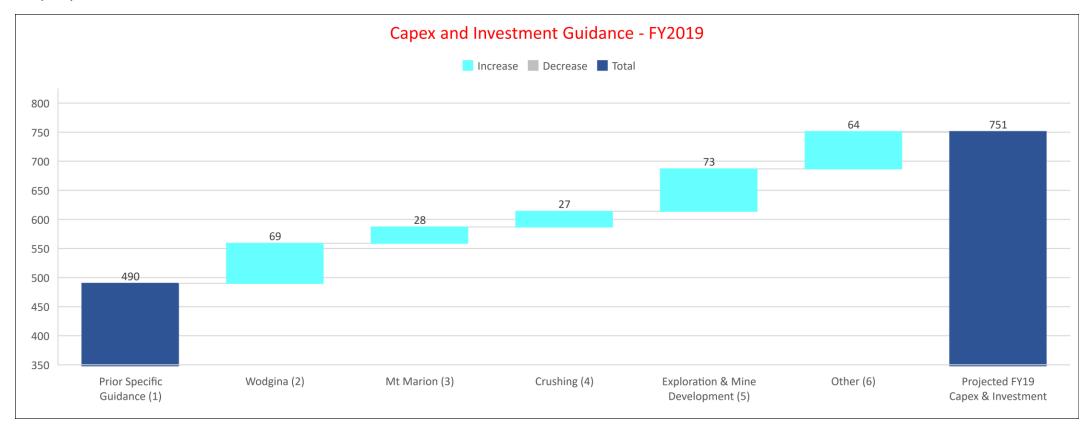
### **FY19 Financial Guidance**

- Full year FY19 EBITDA guidance has previously been provided in the range of \$280m to \$320m<sup>1</sup>
- This guidance set out various assumptions including pricing for lithium and iron ore and production of concentrate at Wodgina
- The Company acknowledges the recent:
  - price increase in the benchmark price of iron ore
  - weakening of the lithium price
- The Company confirms current guidance based on the assumptions provided at 2018 Annual General Meeting and in the ASX Announcement dated 22 November 2018
  - the Company continues to expect FY19 Mining Services EBITDA to be at least \$240m

# Capital expenditure and investment guidance for FY2019



#### The Company continues to invest for the future.



- 1. ASX Managing Director's Presentation 20181122 for "Wodgina, Mt Marion, Koolyanobbing and Yellow Goods".
- 2. Wodgina spend of internal contingency for the construction of the spodumene concentrate plant not incorporated in November 2018 forecast. Total spend remains in line with previous public guidance.
- 3. Mt Marion Additional expenditure including non-process infrastructure to complete the upgrade of the facility to the all-in 6% spodumene concentrate.
- 4. Crushing and processing plant investments including critical spares.
- 5. Includes expenditure on exploration and mine planning at Wodgina, Mt Marion, Hexagon, Kumina and Marillana, oil and gas exploration costs, and capitalised costs associated with the development of Koolyanobbing and Wodgina.
- 6. Includes expenditure on intangibles including CarbonArt, Hazer, BOSS, and sundry items.

### **FY19 Balance Sheet Management**



- Gearing will increase in H2 FY19 with further capital investment as long-term growth projects, including Wodgina, Mt Marion and Kumina, are progressed
  - At 31 December 2018, the Company had undrawn cash facilities totaling \$125m with a further \$200m facility established post 31 December
- Completion of Albemarle transaction during CY19 will return balance sheet to a net cash position
- Projected increase in income during H2 FY19 and H1 FY20 will provide greater borrowing capacity to fund expansion into Wodgina Hydroxide project and other opportunities
- Capital return not contemplated
- Funding for Pilbara Infrastructure Project will be subject of separate stakeholder consultation prior to commitment and will not be funded by sale proceeds



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