

# H1 FY19 Results

Investor Presentation

February 2019

- 1 H1 FY19 Key Headlines**
- 2 H1 FY19 Financial, Safety & Environment Performance**
- 3 H1 FY19 Operating & Commodity Performance**
- 4 Where are we going in H2 FY19**
- 5 Project Pipeline**

# H1 FY19 Key Headlines

**Our most significant building year since inception**

- 1** Sold 50% of Wodgina to Albemarle
- 2** Extensive progress made on Wodgina Spodumene Plant and Non Process Infrastructure
- 3** All-in 6% upgrade at Mt Marion - 450ktpa
- 4** 50:50 JV with Brockman at Marillana Iron Ore Project
- 5** Acquisition of Cliffs Yilgarn Iron Ore Project
- 6** Acquired Kumina iron ore deposits
- 7** Completed detailed design of Bulk Ore Shuttle System (BOSS); 3<sup>rd</sup> party design verification underway
- 8** Carbon fibre dump approved for on-site testing at Koolyanobbing
- 9** Hydrogen/synthetic graphite test plant



# H1 FY19 Financial Performance



<b>Revenue</b> <b>\$554.7m</b> H1 FY18 ↓ 35%	<b>Diluted EPS</b> <b>7.2cps</b> H1 FY18 ↓ 92%	<b>Capex</b> <b>\$494.2m</b> H1 FY18 ↑ 598%
<b>EBITDA (reported)<sup>1</sup></b> <b>\$71.7m</b> H1 FY18 ↓ 80%	<b>Dividends Declared</b> <b>13cps</b> H1 FY18 ↓ 48%	<b>Net Assets</b> <b>\$1.237b</b> H1 FY18 — 0.0%
<b>NPAT (reported)<sup>2</sup></b> <b>\$13.1m</b> H1 FY18 ↓ 92%	<b>Operating cash flow</b> <b>\$21.6m</b> H1 FY18 ↓ 90%	<b>Return on invested capital<sup>3</sup></b> <b>9.8%</b>

## Notes

1. 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 pcps this was a gain of \$93m)
2. Normalised NPAT of \$34.3m excludes after tax adjustments for Pilbara Minerals (PLS) investment
3. Rolling 12 months to 31 December 2018



# Occupational Health & Safety

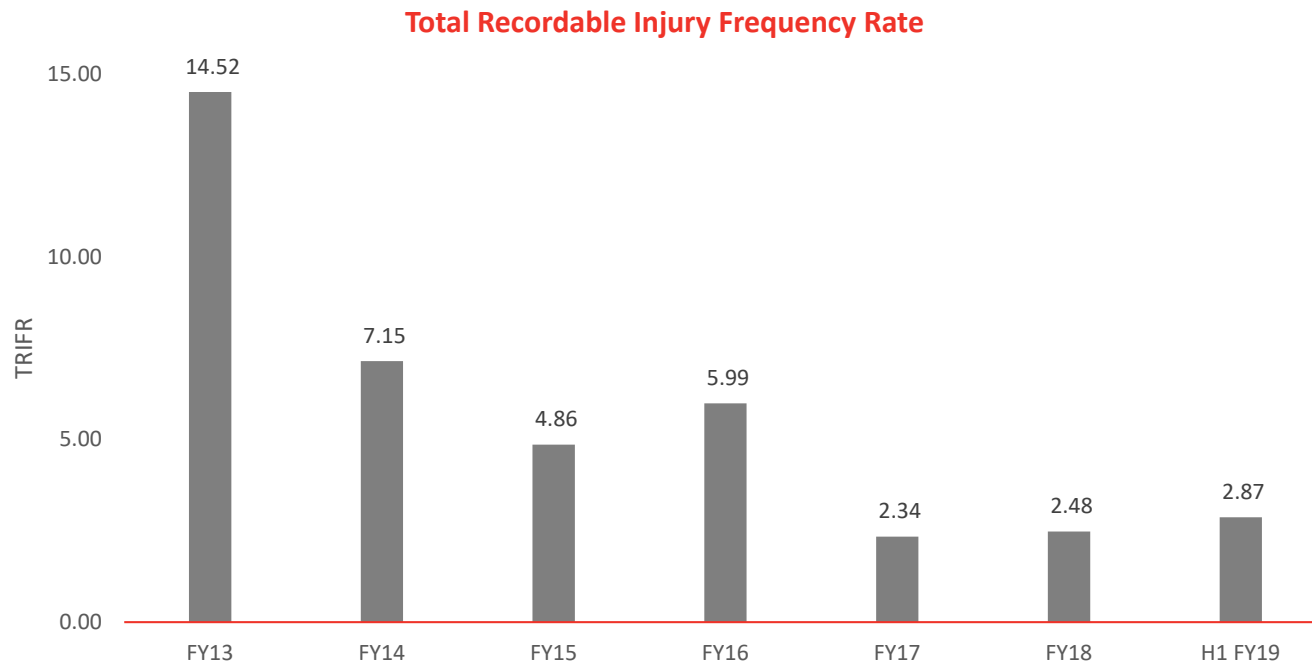
We have sustained industry leading safety performance for the second consecutive year

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

### NOTES

1. 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 ( <b>BESS</b> ) <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>



Notes

1. Battery Energy Storage System (BESS) is an ABB registered product name
2. Based on Wodgina load requirements of 40MW

# Environment – Tailing Storage Facilities

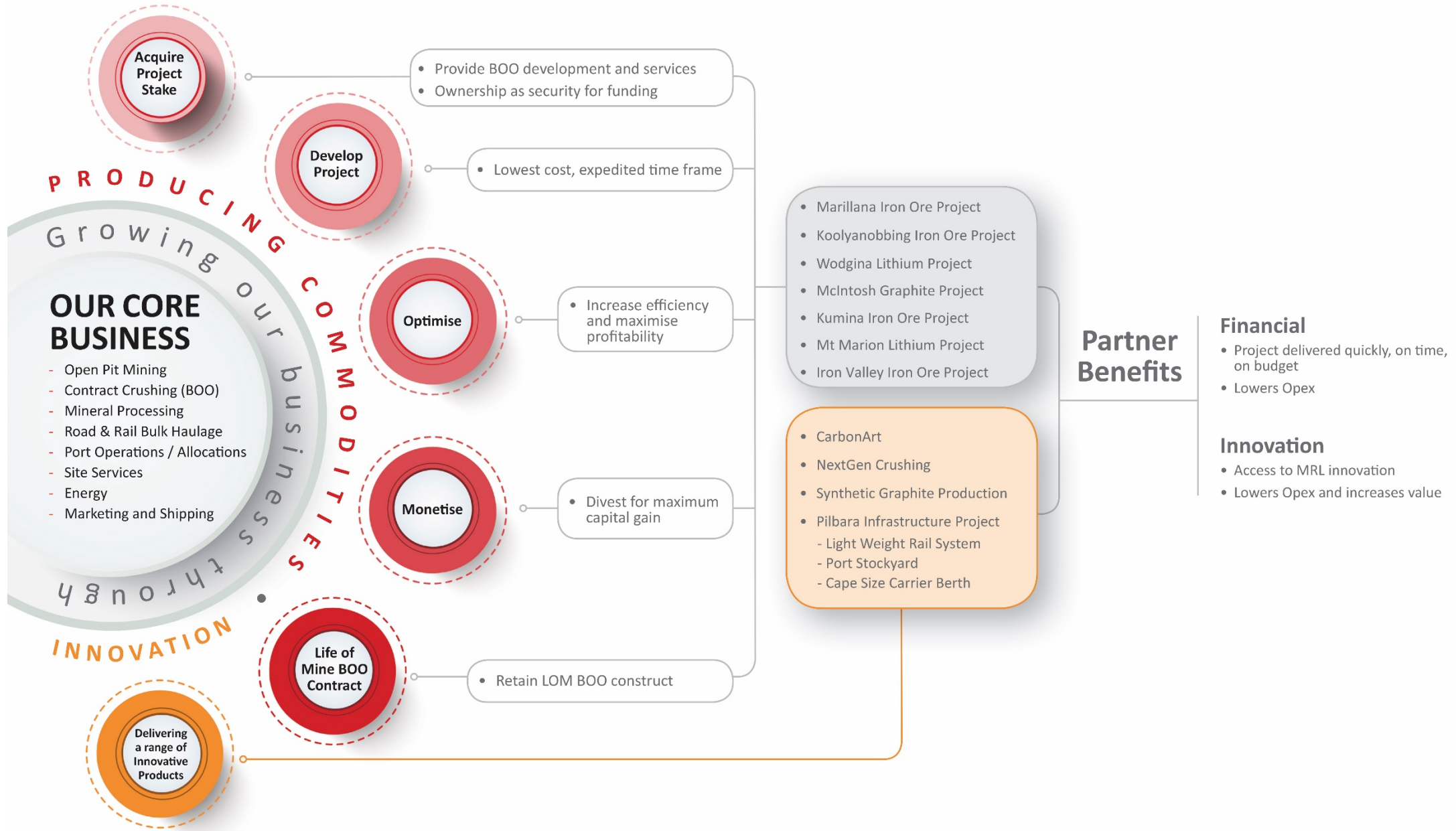
MRL has no tailing storage facilities with the exception of:

- 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





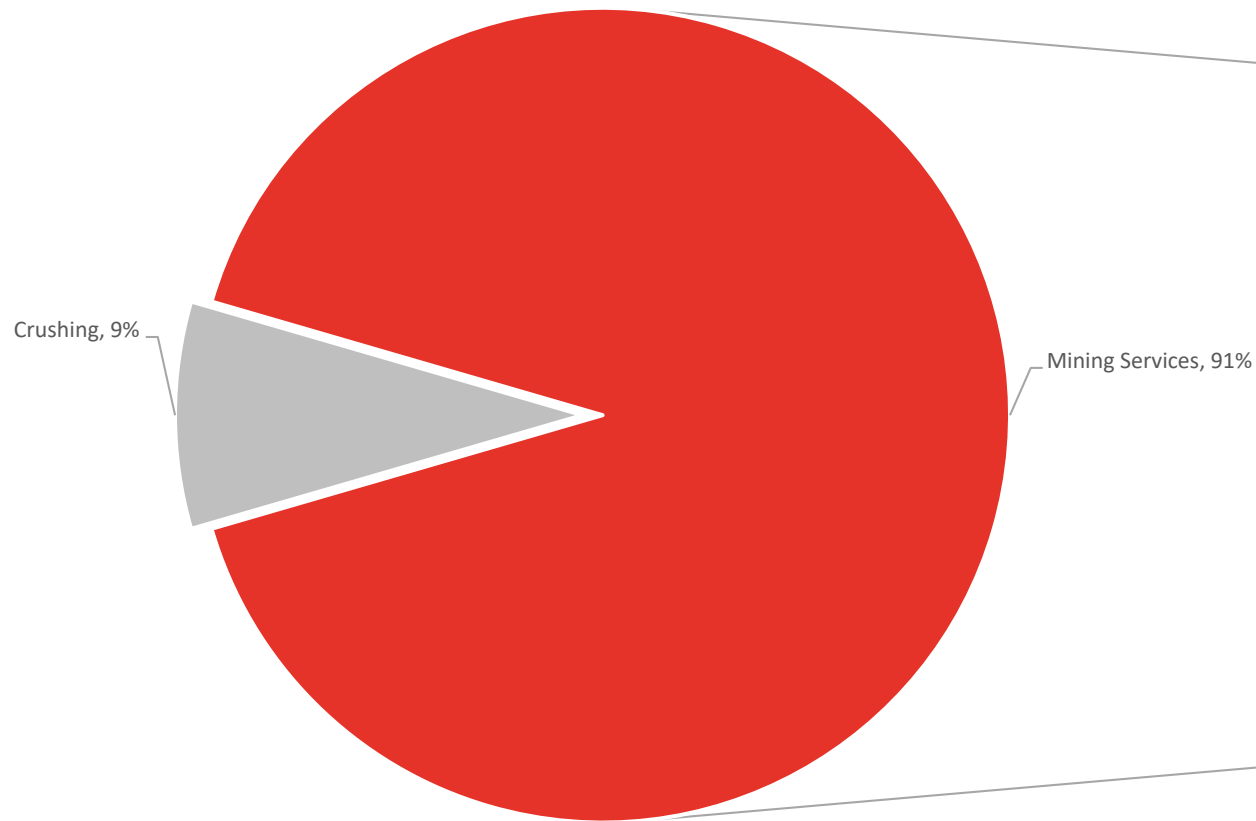
# Our Business Model



# Evolution of Mining Services Business Model

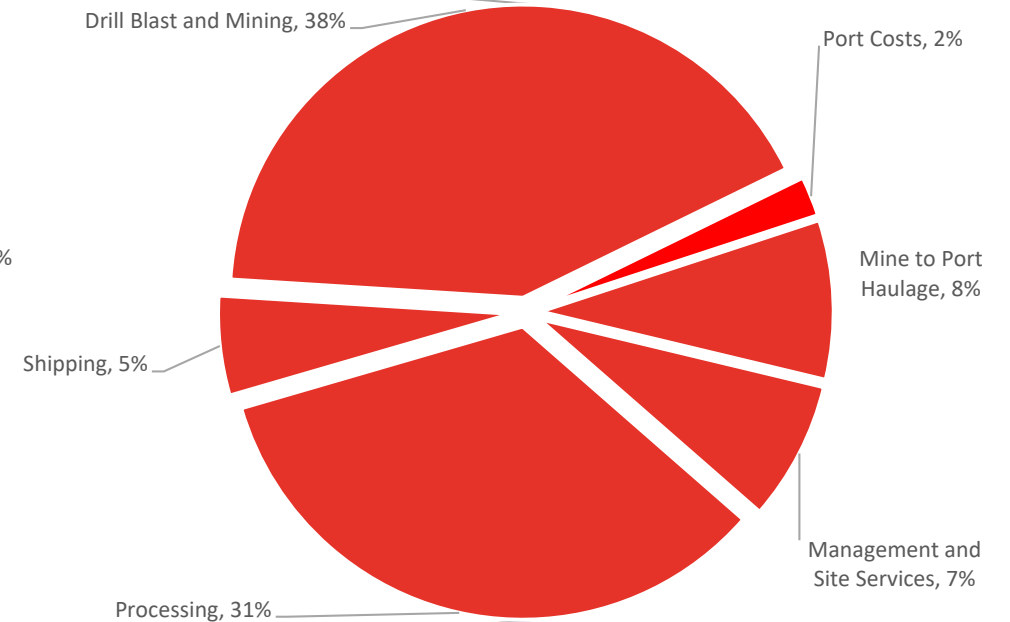


Traditional Business Model



FY18 Crushing Revenue \$AU193m

Profit Share Business Model



FY18 Profit Share Projects Revenue \$AU871m

# 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



# 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

### Wodgina

- 420kwmt of DSO shipped
- DSO operation shut down

## Iron Ore

### Koolyanobbing

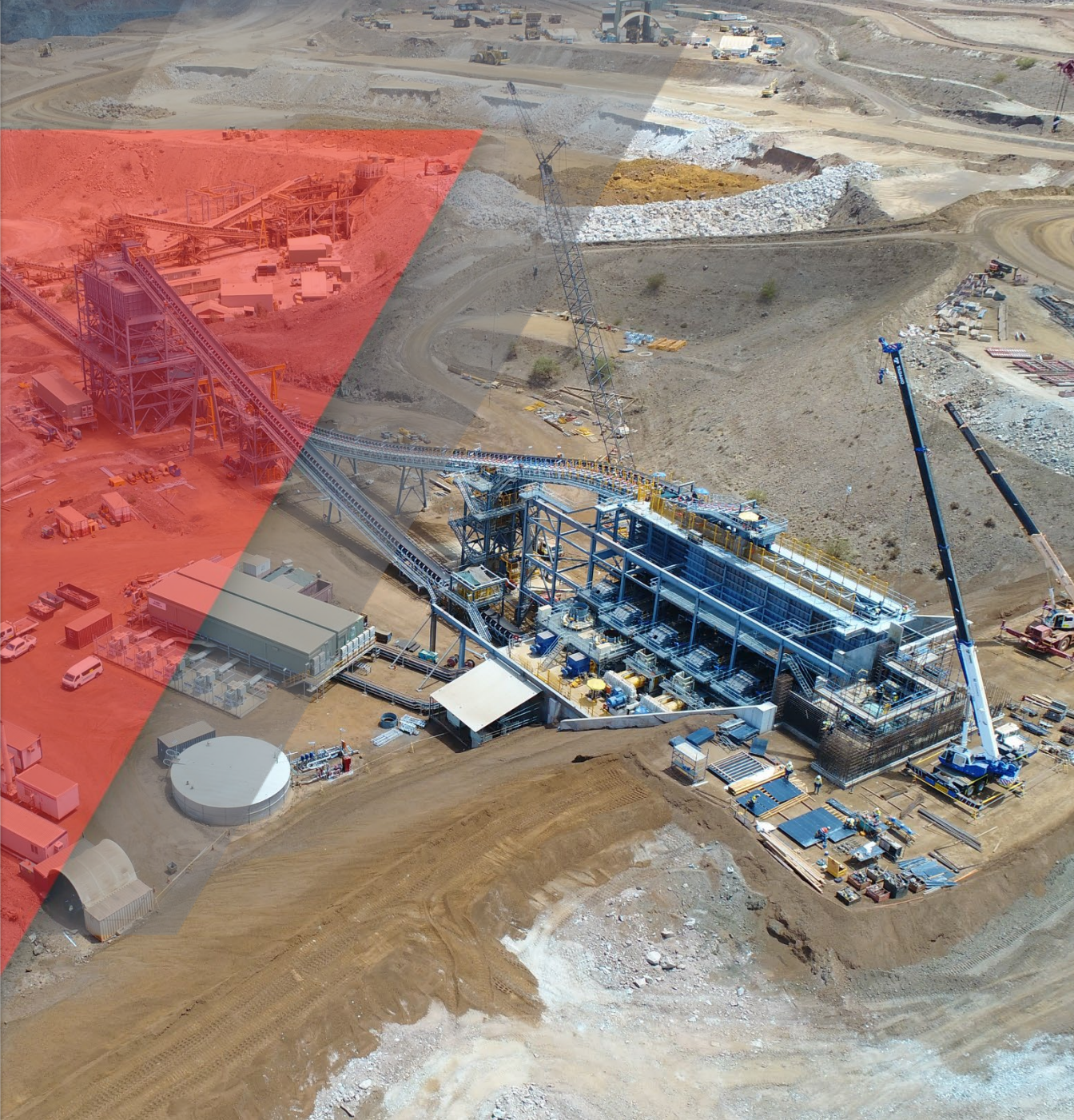
- First shipping commenced in Dec 2018 with 300Kt exported
- A\$81.10 average price / wmt achieved
- A\$83.50 CFR cost / wmt shipped during start up phase

### Iron Valley

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

#### Notes

- 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



**Where we are going in H2 FY19**





# 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 start-up



## 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)

### Wodgina

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

## Iron Ore

### Koolyanobbing

- Export: 2.9Mwmt
  - Lump: 1.3Mwmt
  - Fines: 1.6Mwmt
- Annual Run Rate: 6Mwmt per annum

### 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>



Notes

1. MIN ASX: 21 December 2018



# CY19 Primary Focus



- 1** Complete the construction at Wodgina and achieve name plate production of 750kt
- 2** 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



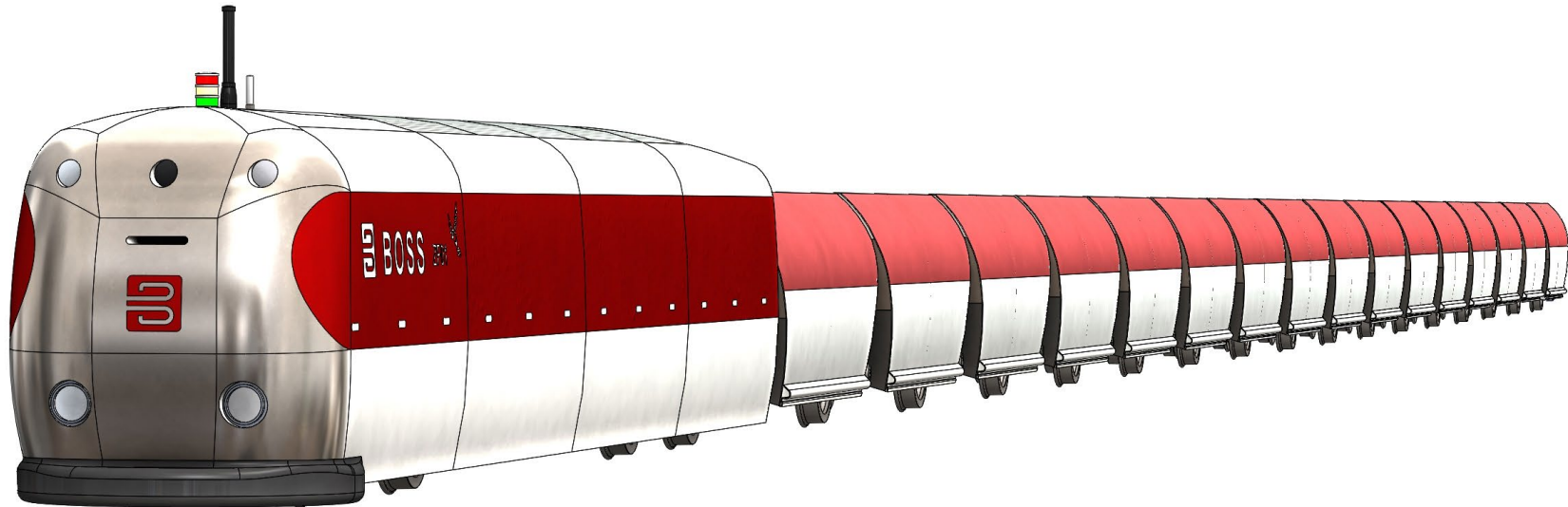
# Project Pipeline

- 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)

## A New Era of Haulage

- Extremely important addition to MRL's long-term mining services business; will generate long-term annuity earnings
- BOSS company is JV between MRL & Destec
- BOSS will connect:
  - stranded ore bodies to existing mining hubs
  - deposits to ports
- Technology will be marketed on a build, own, operate basis in conjunction with MRL crushing business

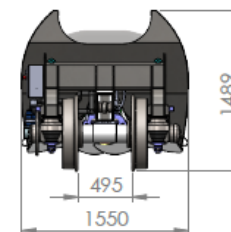
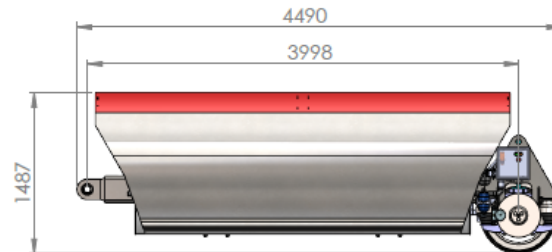
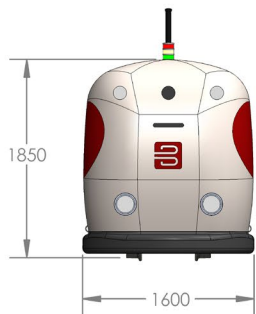
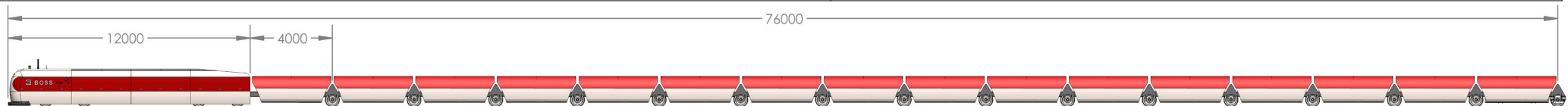




# Bulk Ore Shuttle System – (BOSS)

## Overview of Shuttle Specification

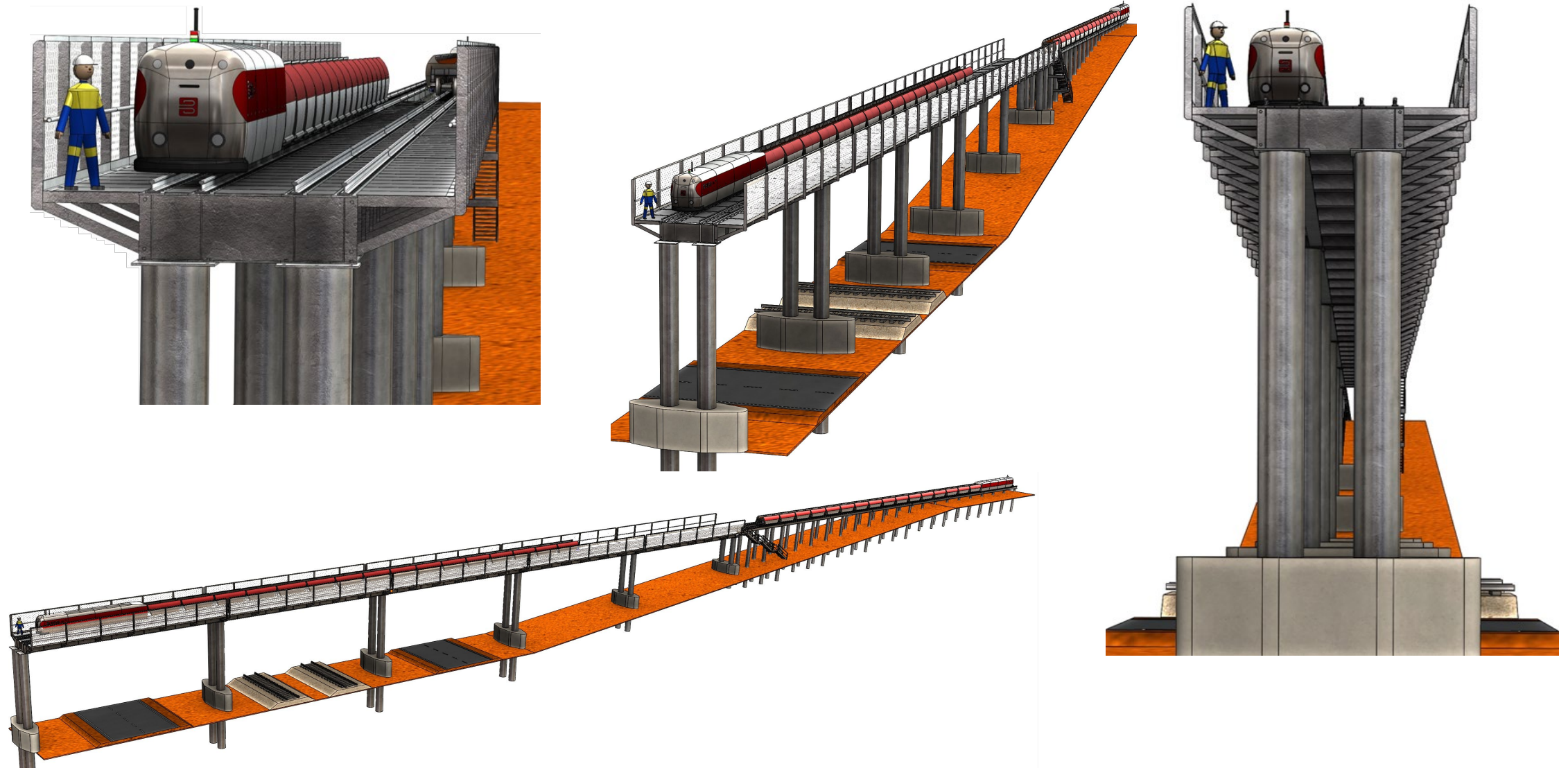
Shuttle Payload	≥120 t
Number of Power Cars	1
Number of Payload Wagons	≥16
Payload Wagon Capacity	≥7.5 t
Electric Motors to Drive Wheels	4
Duty Generator to Peak Load Backup	2
Maximum Speed (Governed)	90 km/h





# Bulk Ore Shuttle System – (BOSS)

## Overview of Track Infrastructure



# Iron Ore Project Update



## Marillana Iron Ore Project

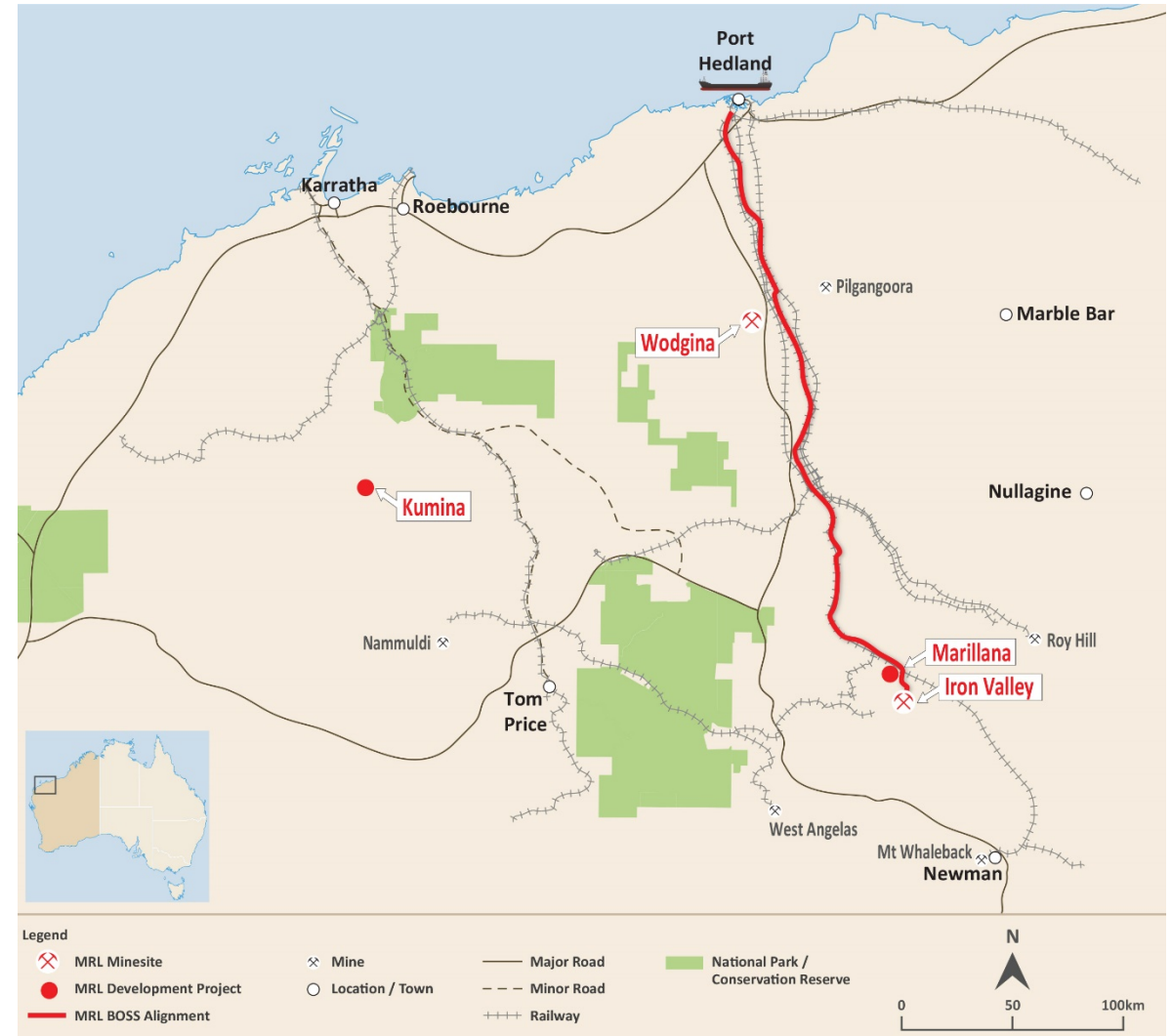
- Farm-in and Joint Venture Agreement unconditional<sup>1</sup>
- JV to build, own, operate mining, crushing, processing & site infrastructure
- MRL to build, own and operate the rail and port infrastructure for life of mine

## 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:

1. MIN ASX : 22 January 2019
2. MIN ASX: 21 December 2018
3. BCI ASX: 28 June 2018



# 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



## Notes:

1. HXG ASX: 8 November 2018
2. HXG ASX: 13 July 2018



## 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







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