Managing Director's Presentation

# 2017 MINERAL RESOURCES AGM

22 November 2017

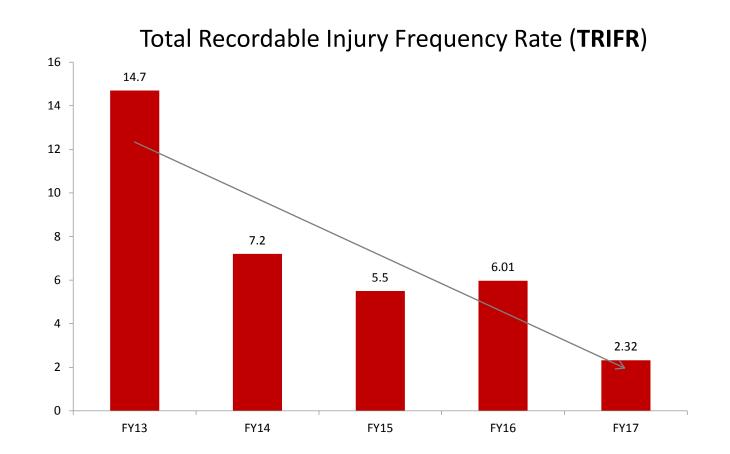




# FY17 RESULTS AND HIGHLIGHTS

# **SAFETY & ENVIRONMENTAL PERFORMANCE**





### **TRIFR 2.32**

- 62% reduction
- Top ranked mining and mining services ASX listed company

### Lost Time Injury (LTI)

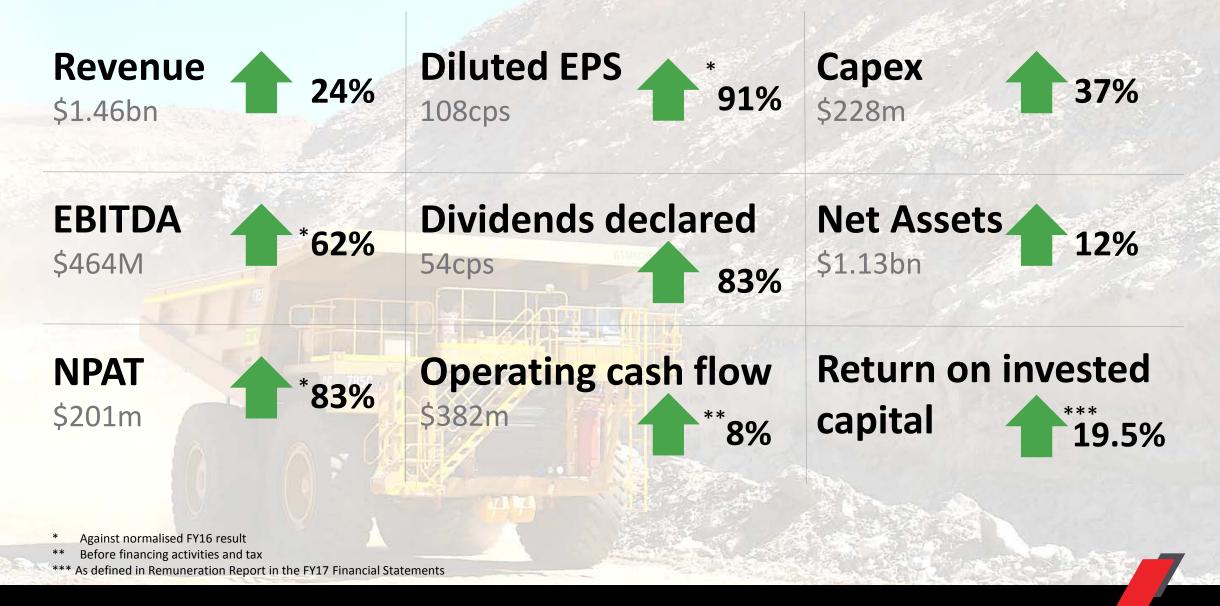
910 days / 12 million man hours LTI free

### Environmental Non-Compliances

• Zero since May 2014

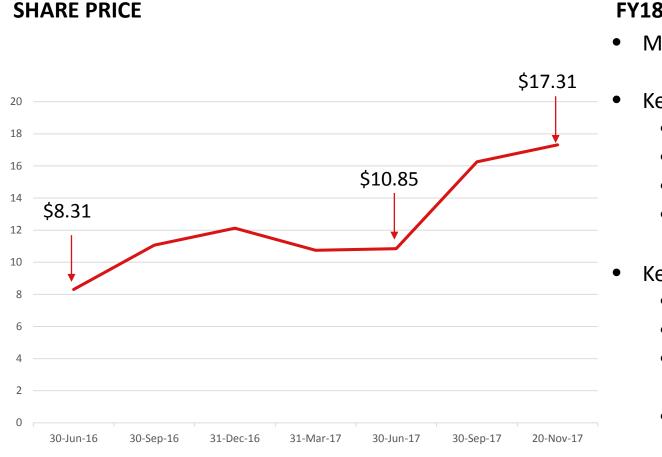
# **FY17 FINANCIAL PERFORMANCE**





# **SHARE PRICE & FINANCIAL OUTLOOK**





#### FY18 OUTLOOK

• Maintaining a minimum EBITDA of \$500m

#### • Key drivers include:

- 130Mt equivalent crushing capacity
- 13.3Mt iron ore exported
- 4.50 4.75Mt lithium DSO exported
- 450Kt spodumene exported (MRL's share 43.1%)
- Key pricing assumptions:
  - Average AUD/USD of 0.78
  - 62% CFR iron ore to average US\$65 per dry tonne
  - Lower grade iron ore to continue to attract abnormally high discounts
  - 6% spodumene price of US\$841 per dry tonne
- Capital expenditure between \$300m and \$350m
- No monetisation of commodity shareholdings

# **FY17 MINING SERVICES HIGHLIGHTS**



<ul> <li>Crushing</li> <li>130Mtpa installed capacity</li> <li>30Mtpa new contract crushing tonnes added during year</li> </ul>	<ul> <li>Haulage</li> <li>268 road trains: 12Mt/64,000,000kms</li> <li>MRL trains: 4.3Mt/584,200kms</li> <li>Mining fleet: <ul> <li>11 excavators - 5 added during year</li> <li>45 dump trucks - 14 added during</li> </ul> </li> </ul>	<ul><li>Customer Retention</li><li>Extremely strong</li><li>Three contracts extended</li></ul>
	year	

#### Village Accommodation

- 1100 total accommodation rooms under management
- Including accommodation at Wodgina and Mount Marion
- 388 rooms added

#### **Construction and Operation**

- Mount Marion commissioned and running above nameplate
- Wodgina DSO operation commenced and production rapidly ramping up

#### Energy

- 34.5MW total installed capacity
- 26MW capacity added during year
- Acquired strategic in ground gas assets



### **FY17 COMMODITY SHIPMENTS**



# 12.27Mt

Iron Ore

# 0.15Mt

Manganese

# 0.116Mt

Spodumene\* 100% basis

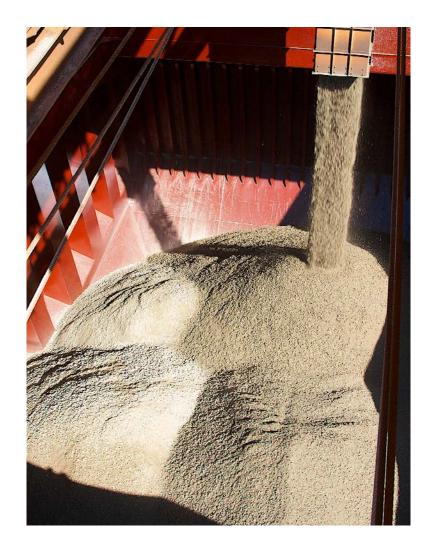
# 0.72Mt

**DSO** Lithium



# **WODGINA DSO LITHIUM**





### **DSO Processing**

- 5 DSO clients taking monthly DSO deliveries
- 4 DSO plants successfully processing DSO on a continuous basis
- 5<sup>th</sup> DSO plant in start up &

commissioning phase

#### **Exports**

- 1.8Mt exported Apr to Oct 2017
- FY18 exports between
  - 4.50Mt 4.75Mt

### **Unprecedented Cooperation**

MRL technical team fully integrated with client operation teams in China

### **COMMUNITY SUPPORT**

**Major Financial Partnerships** 























# **COMMUNITY SUPPORT CONTINUED**



#### MRL support the local community through a wide range of sponsorships, scholarships and donations





- City to Surf
- Esperance CCI Business Awards
- Esperance Tjaltjraak Services
- Lions Cancer Institute
- Moorine Rock Primary School
- Rockingham Kwinana Chamber of Commerce
- Rockingham Senior High School
- Roy Hill Community Foundation
- Scarboro Surf Lifesaving Club
- Southern Cross Motorcycle Club
- St Joseph's School
- Telethon
- USA Memorial Day
- Variety WA
- WA Squash Junior State Team
- Yilgarn Bowling Club



#### MINERAL RESOURCES

# OUTLOOK FOR FY18 AND BEYOND

## **FY18 MINING SERVICES OUTLOOK**



#### Crushing

•	15-20Mtpa new contract	
	crushing capacity to be added	

#### Haulage

 New mining fleet

 4 new excavators (400t & 600t class) taking total fleet to 15
 26 new dump trucks (200t class) taking total fleet to 71

 Gradual introduction of carbon fibre trays to MRL mining fleet

#### Village Accommodation

• 120 new rooms at Wodgina

#### Energy

- Develop existing Perth Basin assets
- Acquire additional gas assets
- Establish and grow upstream gas processing capability
- Expand LNG power solutions

# **FY18 PLANNED COMMODITY PRODUCTION**



### **Iron Valley**

- Current run rate of approximately 8Mtpa
- Marginal contributor to MRL business

### Yilgarn

- Current run rate 5Mtpa
- Awaiting approval for Bungalbin and Jackson 5 Government decision imminent
- Approval will facilitate:
  - 425 direct & 1500 indirect jobs
  - A\$65M annual revenue in port fees & royalties to assist State Government repair budget deficit

### **Mount Marion**

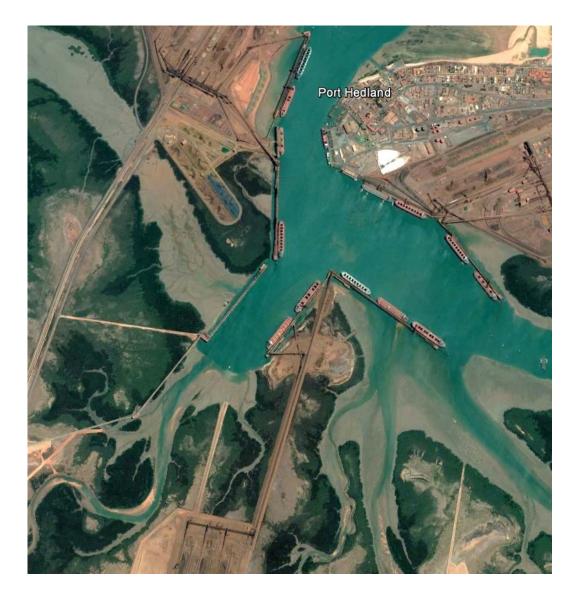
- Current run rate exceeding 450Ktpa 4% & 6% product
- Plant upgrade to produce all-in 6% product by July 2018

### Wodgina

- 4.50Mtpa 4.75Mtpa DSO weighted towards second half of FY18
- 5.50Mtpa 5.75Mtpa in FY19
- Construction of 750Ktpa 6% spodumene plant in 3 modules – commissioning progressively between July 2018 and March 2019
- Construction of 50Ktpa lithium carbonate plant in 2 modules – commencing July 2018 with commissioning during quarter 2 CY20

### PILBARA LOGISTICS SUPPLY CHAIN INFRASTRUCTURE





#### **Creating a Sustainable Iron Ore Business**

- Install 330km mine to port lightweight, low cost rail system: Bulk Ore Shuttle System (BOSS)
- Develop fully automated port receival stockyard
- Develop port export infrastructure to support BOSS rail system
- 30 to 50Mtpa multi-user capacity
- All-in free on board cost < US\$20/tonne
- BOSS and port infrastructure allows users to become low cost quartile producers
- Strategic assets in one of the world's largest bulk export ports provides MRL with a logistics infrastructure business with a 30-50 year horizon

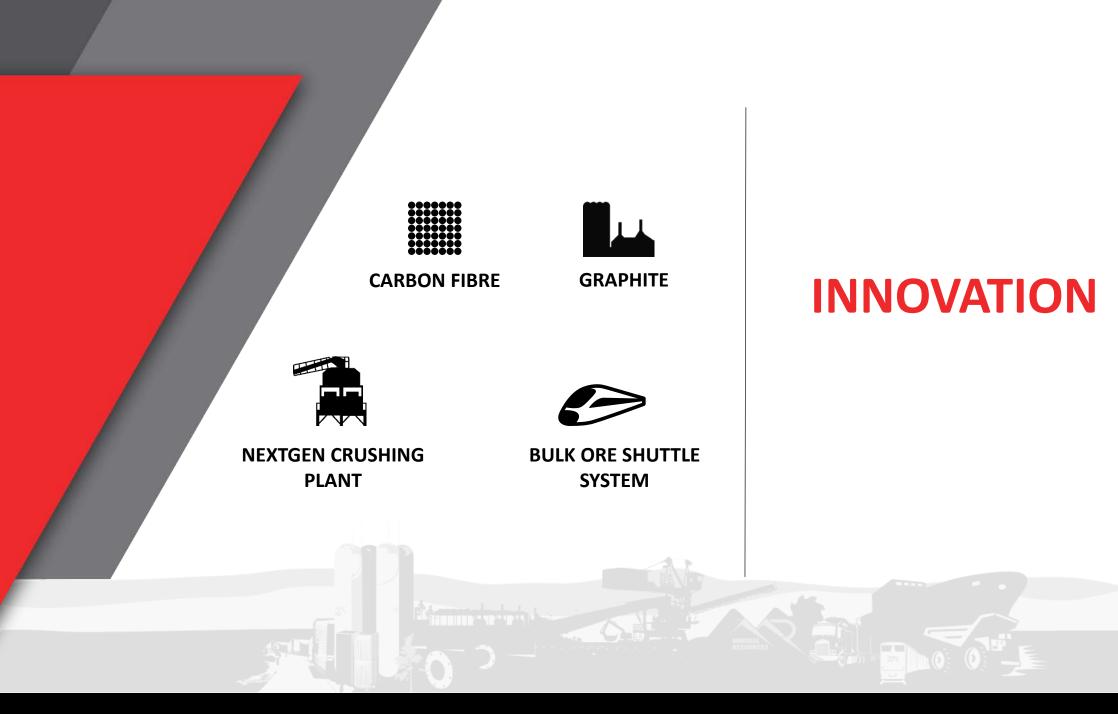
### **GAS AND REMOTE POWER**



#### **Securing Low Cost Power**

- Secure long term, in-ground gas reserves to provide fixed price, low cost power to MRL sites and operations
- Develop Perth Basin gas assets and exploration opportunities
- Develop in-house upstream gas processing capability
- Control energy costs for 20+ years
- Key business development strategies:
  - 1. Expand mining services business by offering long term, fixed price power solutions to clients
  - 2. Create downstream processing opportunities using gas including synthetic graphite, spodumene concentrate and lithium carbonate products





# **OVERVIEW OF INNOVATION STRATEGY**

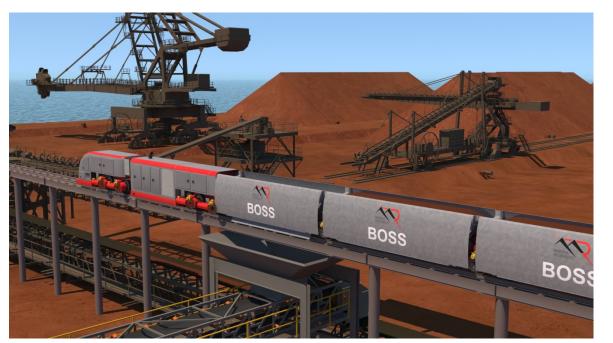




- MRL is a specialist mining services contracting company
- Our strategic use of innovation:
  - enables MRL to develop and offer unique mining products and services with high barriers to entry
  - substantially increases the value add proposition to our clients
  - provides a key point of differentiation to our competitors
  - provides a material competitive advantage
  - enables MRL to remain the leader in the mining services industry
  - delivers sustainability and 30 to 50 year horizon for MRL's mining services business

# **BULK ORE SHUTTLE SYSTEM (BOSS)**





#### **Innovation in Motion**

- Narrow gauge, lightweight rail system
- Hybrid Power: electric driven, battery operated with reciprocating diesel gensets
- Driverless, fully autonomous shuttles with 120t payload
- Operated from Perth based remote operations centre
- Extremely low capital and operating costs
- Worldwide application across a range of commodities and mining uses
- Stage 1: Demonstration track underway and will be fully proven by quarter 2 CY18
- Stage 2: Commence construction of 330km dual track connecting Iron Valley to Port Hedland in quarter 3 CY18 with a projected 18 month construction program

## **CARBON FIBRE TECHNOLOGY**



#### **Industry Changing Innovation**

• Established a carbon fibre manufacturing foundry



- In-house designed and manufactured specialist equipment that produces large scale, lightweight structural beam, tubular and plate components
- Components used to produce diverse range of products for the mining industry
- Initial product lines 150/190/240T dump truck trays
- 150T dump truck tray completed:
  - Mk 1 reduces tray weight from 22t (traditional steel) to 9t
  - Mk 2 design targeting further weight reduction to 7t
- Tray weight reduction facilitates material payload increase when loaded and creates material fuel/tyre savings when unloaded: ~15% saving in total material movement costs
- Next phase: introduce automation for quicker & cheaper manufacturing

## **NEXTGEN CRUSHING PLANTS**





#### **Innovative Crushing Technology**

- Developed 12Mtpa portable & modular crushing plant that is unique to the mining industry
- Evolution of 5Mtpa semi-fixed plants that MRL developed in 2010/11 and successfully deployed across a number of sites
- Features:
  - Autonomous: capable of operation from Perth based remote operations centre
  - Rapid deployment: 10 weeks from commencement to fully commissioned and operational
  - Direct tip feed from 240 T dump trucks
  - Increased safety, operability and maintainability
  - Substantial cost savings for clients

### **SYNTHETIC GRAPHITE PRODUCTION**





#### **Partnership with Hazer**

- MRL is responsible for finalising development of the Hazer process that creates high quality, battery grade synthetic graphite using key ingredients of natural gas and iron ore
- MRL granted exclusive worldwide IP license to use Hazer process for graphite production
- Staged project execution

**Stage 1**: design & construct 1T pilot plant over 8 month period

**Stage 2**: design and construct 1,000T commercial production plant

**Stage 3**: expand commercial production to 10,000T and beyond

**Stage 4**: lowest cost, global graphite producer

Product value at top of battery grade graphite market\_



**Disclaimer:** This presentation has been prepared by Mineral Resources Limited ("MRL" or "the Company"). It should not be considered as an offer or invitation to subscribe for or purchase any securities in the Company or as an inducement to make an offer or invitation with respect to those securities. No agreement to subscribe for securities in the Company will be entered into on the basis of this presentation.

This presentation contains forecasts and forward looking information. Such forecasts, projections and information are not a guarantee of future performance, involve unknown risks and uncertainties. Actual results and developments will almost certainly differ materially from those expressed or implied.

You should not act or refrain from acting in reliance on this presentation material. This overview of MRL does not purport to be all inclusive or to contain all information which its recipients may require in order to make an informed assessment of the Company's prospects. You should conduct your own investigation and perform your own analysis in order to satisfy yourself as to the accuracy and completeness of the information, statements and opinions contained in this presentation before making any investment decision.

OFFICE: 1 Sleat Road, Applecross, WA 6153

PO. Locked Bag 3, Canning Bridge, Applecross, WA 6153

P +61 8 9329 3600 F +61 8 9329 3601



#### www.mineralresources.com.au