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\_



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