

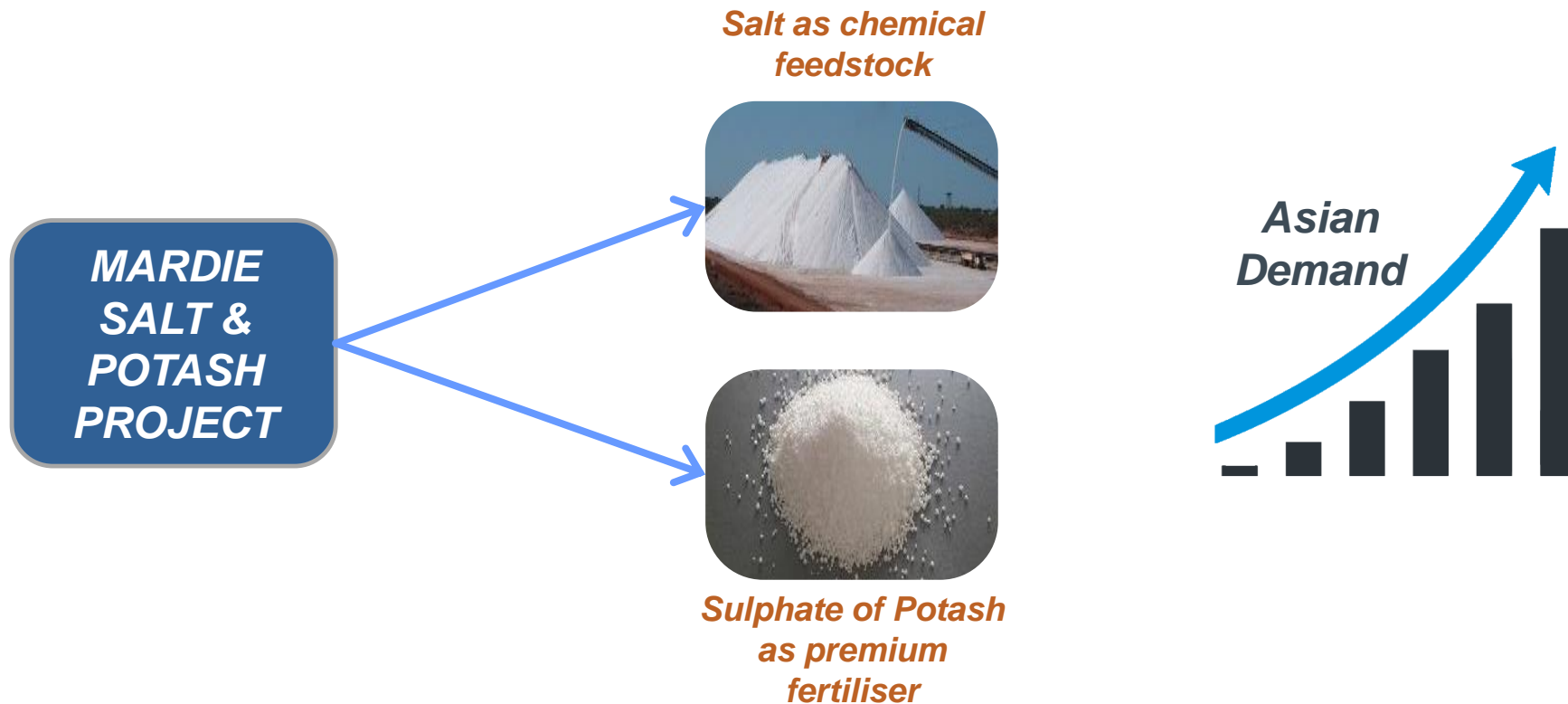


# Driving the Mardie Project Rapidly Towards Development

## Corporate Presentation

# BCI's Investment Opportunity

**Mardie is a Tier 1 long life project that presents an exciting opportunity to supply the Salt and Potash growth markets in Asia**



**BCI believes rapidly developing Mardie will create substantial value for all stakeholders**

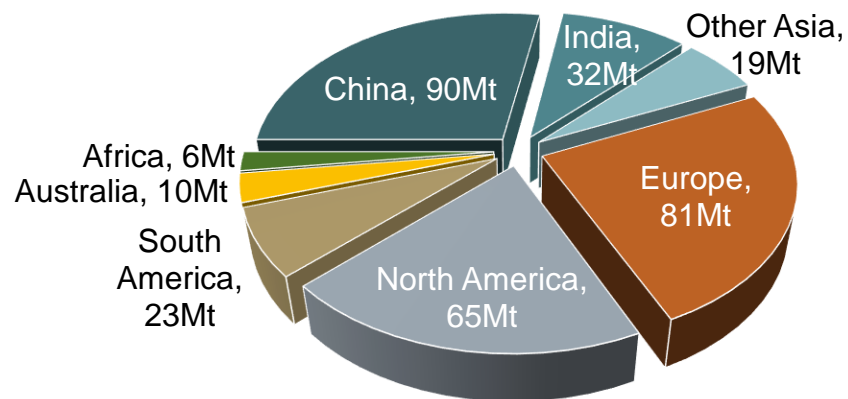
# The Salt Market



# What is Salt?

- Salt (NaCl) is 40% sodium (Na) and 60% chlorine (Cl)
- Essential for many aspects of modern living
- >300Mtpa of Salt produced and consumed globally

**Global Salt Production**



Source: Roskill 2017 Salt Market Report.

- Salt is extracted via two main methods:
  1. Solar evaporation of seawater or inland lakes
  2. Mining of rock salt deposits via hard rock or solution mining methods

**Solar Evaporation**

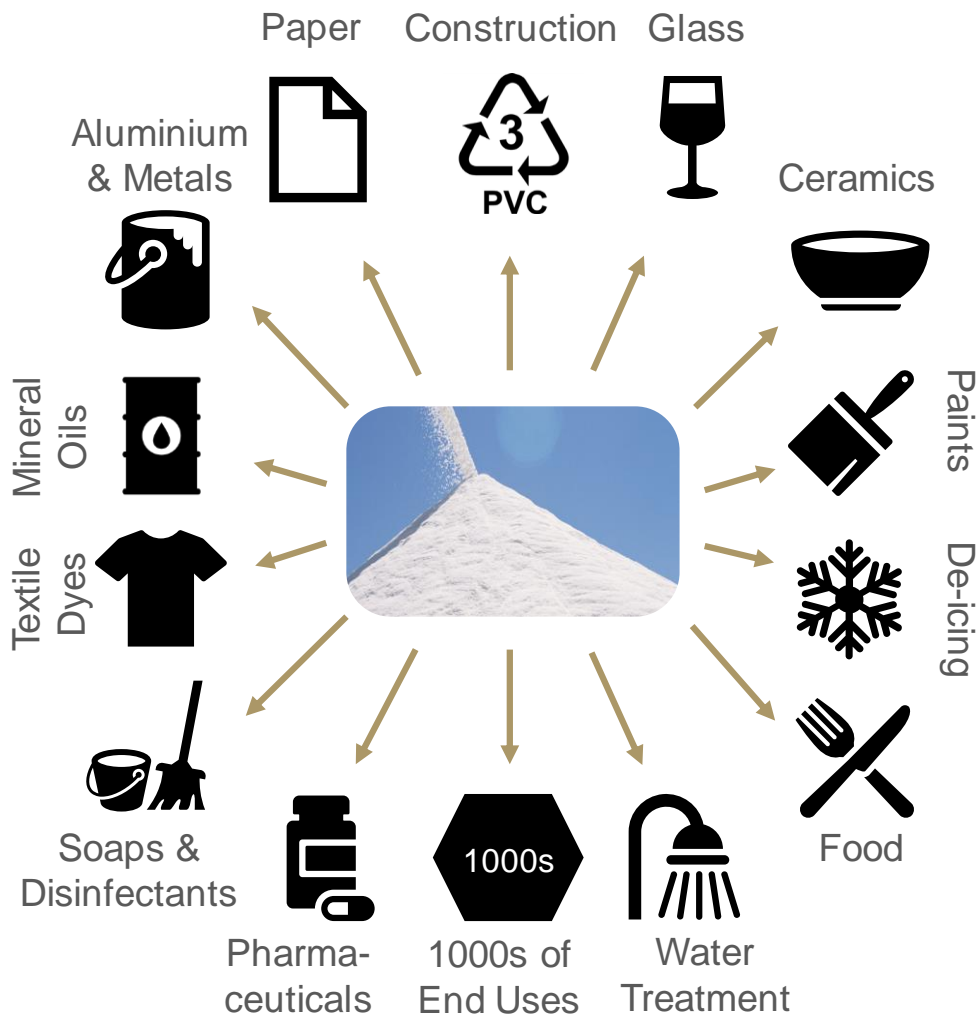


**Hard Rock Mining**



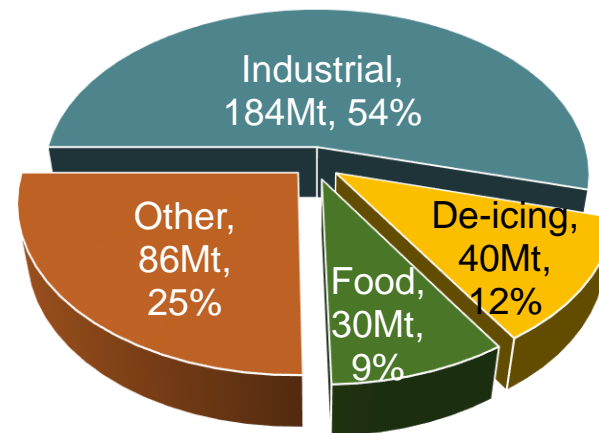
# Salt Uses

Salt is an essential feedstock for thousands of products



- **Industrial/chemical/pharmaceutical:** including glass, PVC, paper, textiles, medicines, oils etc.
- **Water treatment:** increases purity and removes elements harmful to equipment
- **Food & Feed:** preserves & flavours human food; essential element of animal nutrition
- **De-icing:** improves road transport safety in winter

Mardie Target Markets



Global Salt Market

Source: Roskill 2017 Salt Market Report.

# Positive Asian Salt Market Dynamics

Supply deficit of ~25Mtpa forecast in next decade (~6 Mardie sized projects)

## SALT DEMAND DRIVERS

*Increasing Asian middle class*



*Increasing demand for consumer & industrial products*

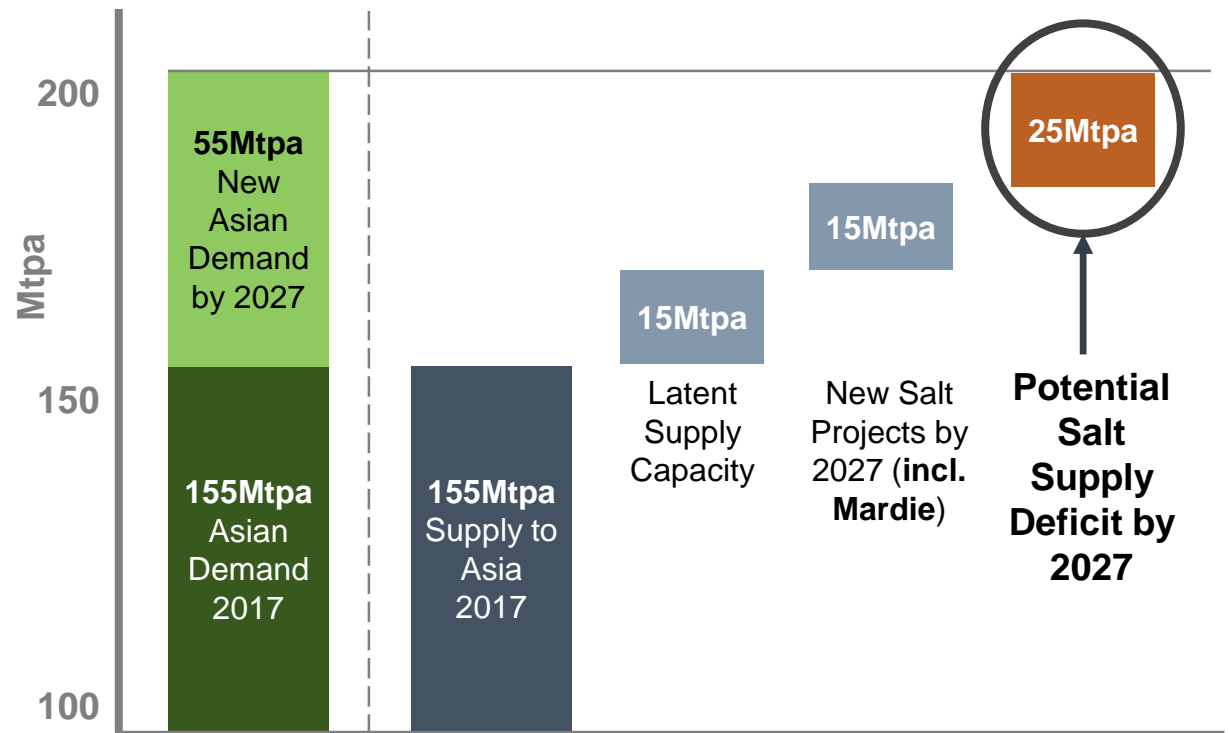


## SALT SUPPLY DRIVERS

*Urbanisation reducing Chinese salt fields*



*Limited new salt development projects*



Source: Roskill 2017 Salt Market Report, BCI analysis.

- Price range of US\$33/t to US\$70/t (CIF) over last decade
- Current Asian salt market value: **US\$6 billion per year**
- 2027 Asian salt market value: **US\$8 billion per year**

# The Potash Market





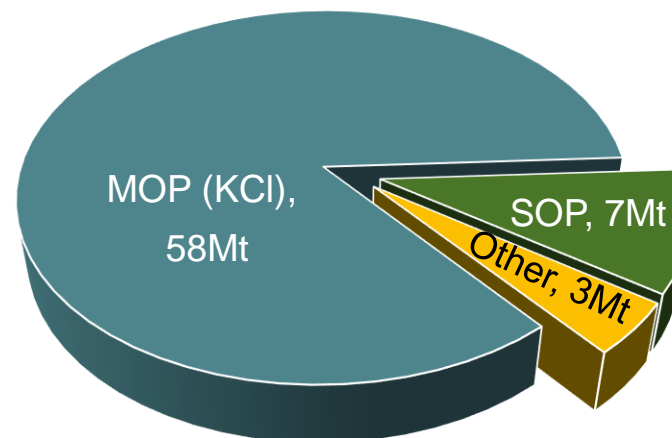
# What is Sulphate of Potash (SOP)?

- Global agricultural industry depends on three primary fertilisers – Nitrogen (N) Phosphate (P), and Potassium (K)

- Potassium improves crop yield & quality, and increases resistance to diseases
- Two main types of potassium fertilisers:
  - Muriate of Potash (MOP) – KCl
  - Sulphate of Potash (SOP) –  $K_2SO_4$



Global Potash Market (Product Tonnes)



Source: Integer Research 2017, BCI analysis.

- SOP is a premium fertiliser used on higher value crops (fruits, berries, vegetables)
- SOP (US\$500-600/t) has large price premium over MOP (US\$200-300/t)



# Positive SOP Market Dynamics

More food needed from less land..... increases need for premium quality fertilisers

## SOP DEMAND DRIVERS

*Increasing Asian middle class*



*Needing more and better quality food*



*Reducing arable land*



*Crop yield increase required*



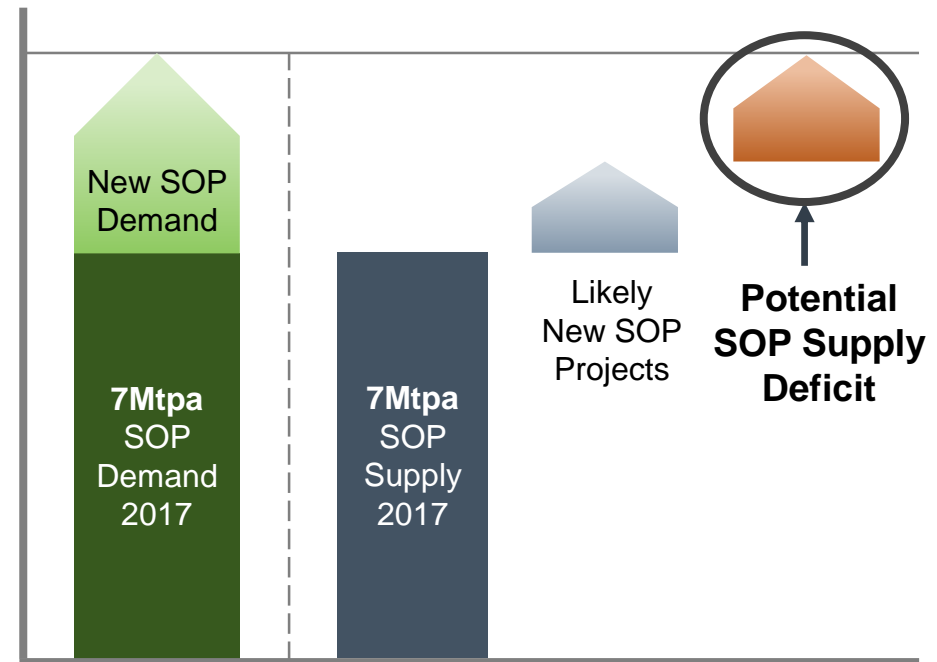
## SOP SUPPLY DRIVERS



*No existing Australian production*



*Australian SOP projects far inland*



Source: BCI analysis.

- Price range of US\$450/t to US\$1,000/t over last decade
- Current SOP market value: **US\$4 billion per year**
- Future SOP market value: **US\$5 billion per year**

# Mardie Salt & Potash Project



# Australian Salt & SOP Landscape

- Five large existing evaporative **Salt** operations in the Pilbara region of WA
  - Total production capacity of 14Mtpa
  - Up to 5 decades old
- No existing **SOP** production in Australia with all planned projects based on inland salt lake brines
- **Mardie Project** – 100% owned by BCI – is located on the coast in the centre of the salt production region
- Mardie will produce and sell **Salt** as primary product and **SOP** (+ potentially other) as by-product from an inexhaustible seawater resource



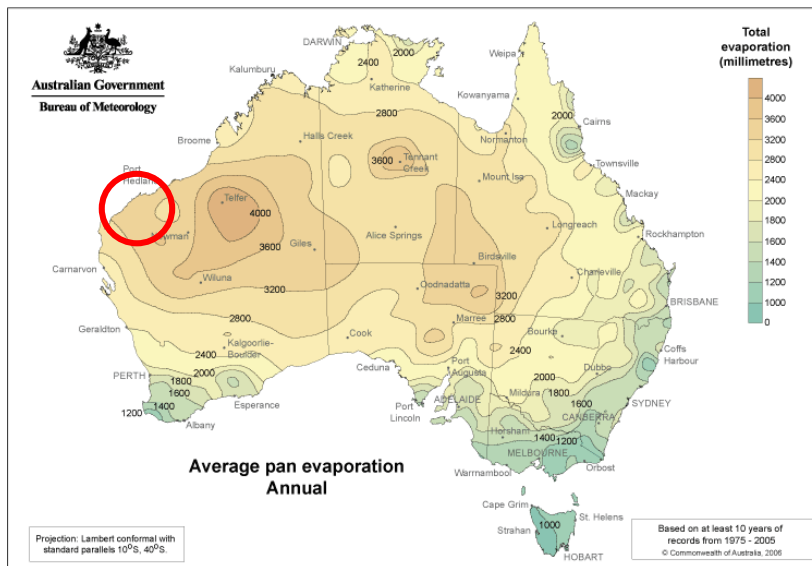
# Mardie – Ideal Location

## Large landholding in hottest part of Australia

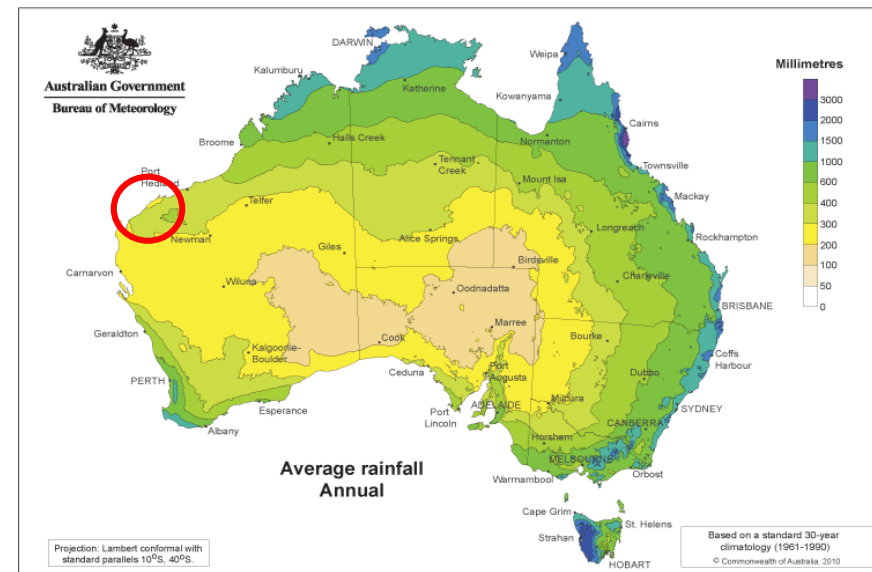
- Vast area of impermeable clay soils
- Suitable marine area for export jetty
- High temperature and high winds (= high evaporation)
- Low average rainfall



### Annual Evaporation

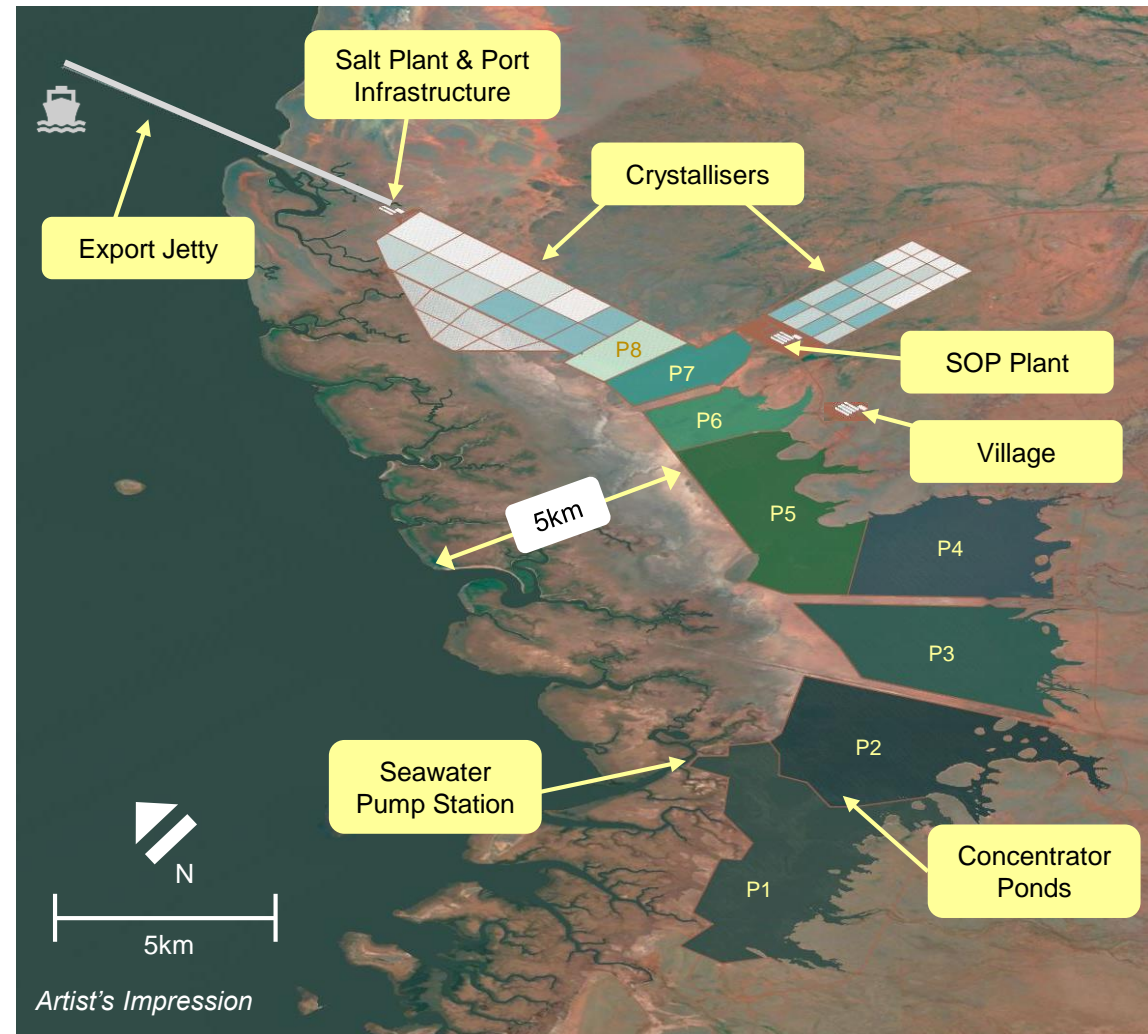


### Annual Rainfall



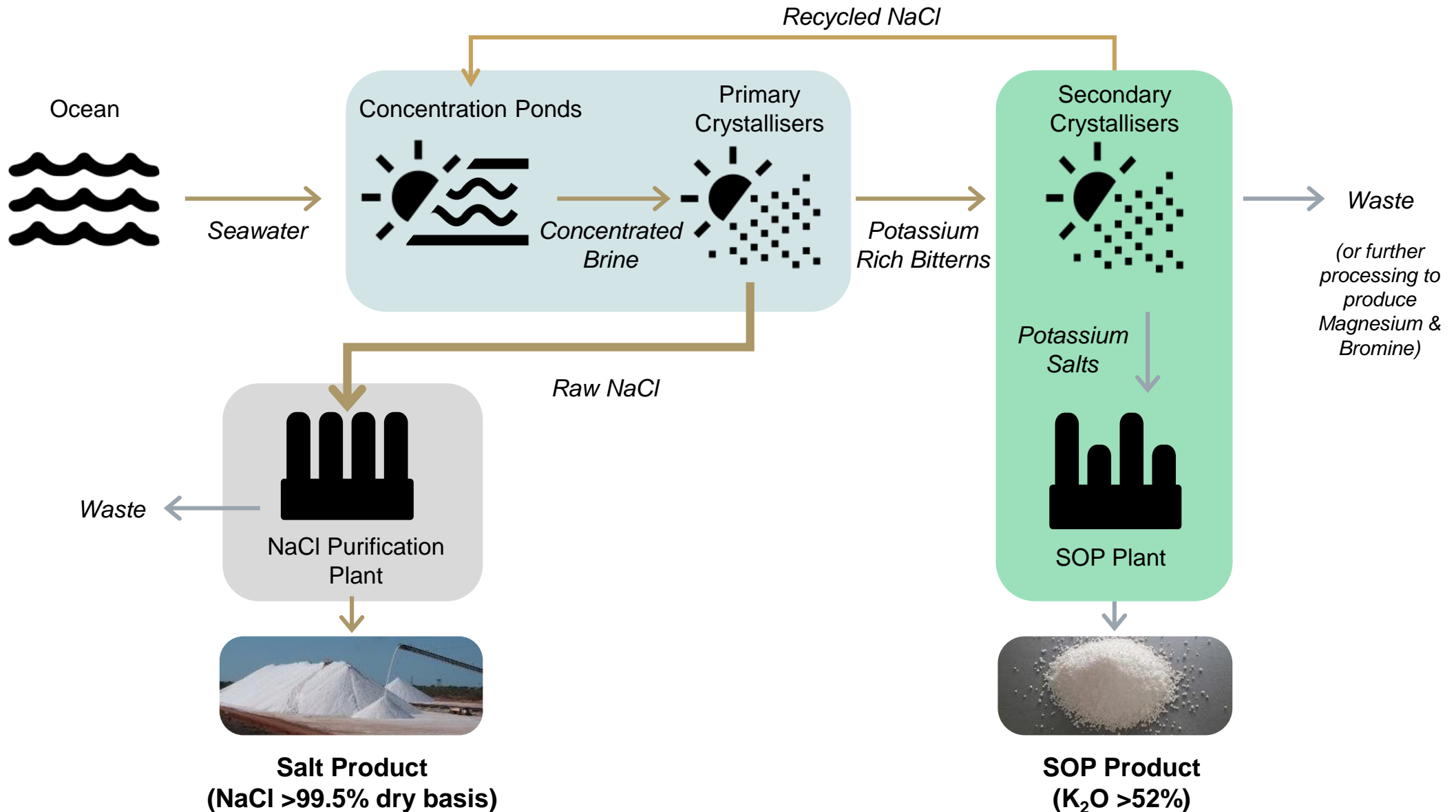
# Mardie Project Layout

- Mardie Project footprint designed 3-5km inland to limit disturbance of coastal ecosystem
- 6 pumps on floating pontoons with 10,000l/s capacity
- 8 large ponds and 36 crystallisers over a 20km x 5km area
- Salt Plant and SOP Plant optimally located
- 7km salt export jetty to reach 5m water depth
- 10,000t salt transshipping vessel to load large vessels anchored 25km offshore



# Simplified Process Flow

Applying latest processing technology to produce high purity products





# Attractive Pre-Feasibility Economics<sup>1</sup>

## Production

- 3.5Mtpa high-purity industrial salt (NaCl)
- 75ktpa sulphate of potash (SOP)

## Capex

- A\$335M, comprising A\$248M for salt and A\$87M for SOP

## Opex

- Salt: A\$20/t FOB (all-in cash cost basis)
- SOP: A\$250/t FOB (all-in cash cost basis)

## Financials<sup>2</sup>

- Pre-tax NPV<sub>10</sub> of A\$335M
- Annual EBITDA: A\$102M pa

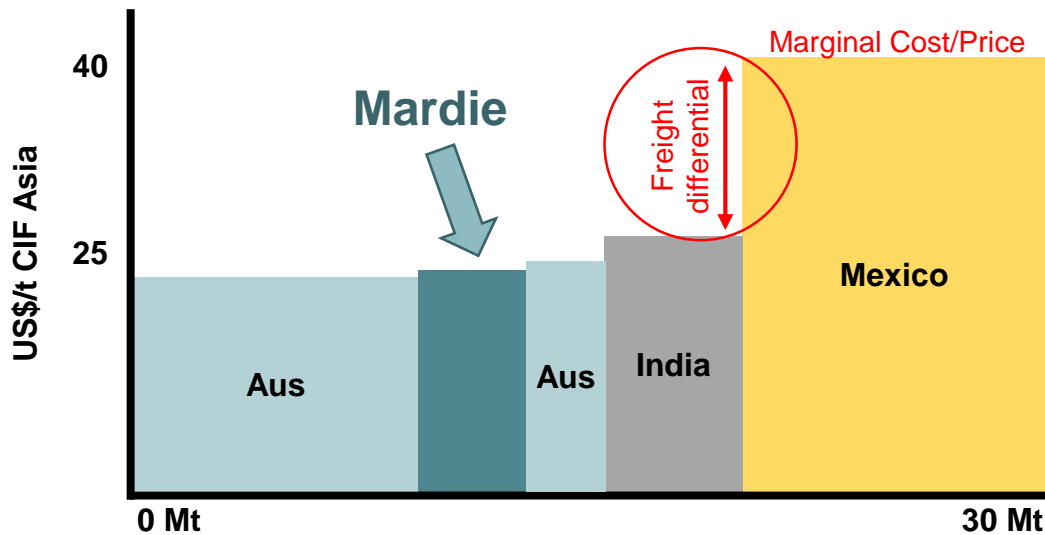
1. Refer to BCI ASX release dated 1 June 2018. All material assumptions and technical parameters underpinning the production target and forecast financial information derived from the production target continue to apply and have not materially changed.

2. PFS based on a 30-year operating life, with salt price of US\$30/t FOB, SOP price of US\$500/t FOB and AUD exchange rate of 0.75.



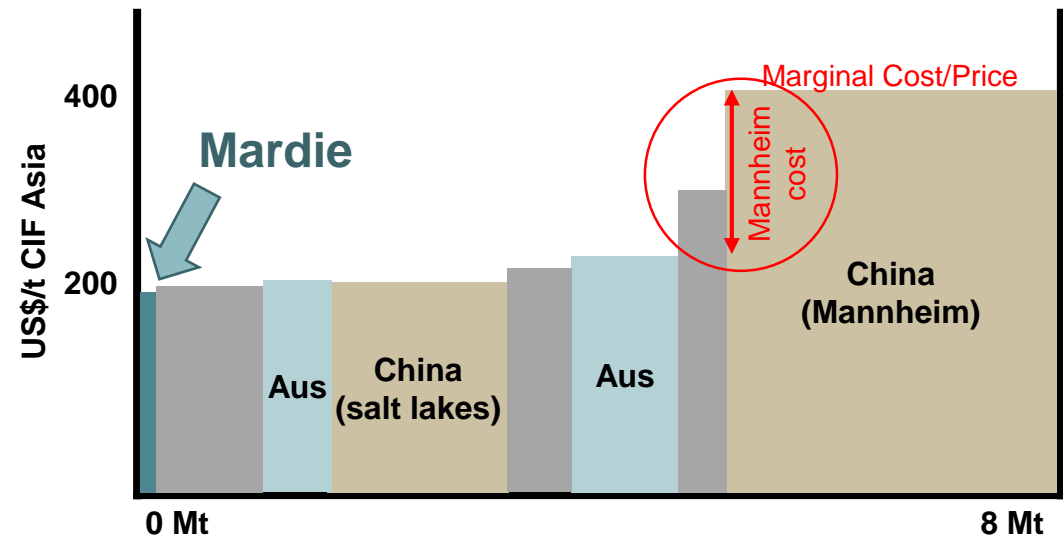
# Mardie's Competitive Positioning

## Seaborne High Purity Salt Cost Curve



- Australian freight advantage compared to Mexico (displace some Mexican supply)
- Mardie to blend latest technologies with proven production processes
- Mardie will be cost competitive with existing Australian operations

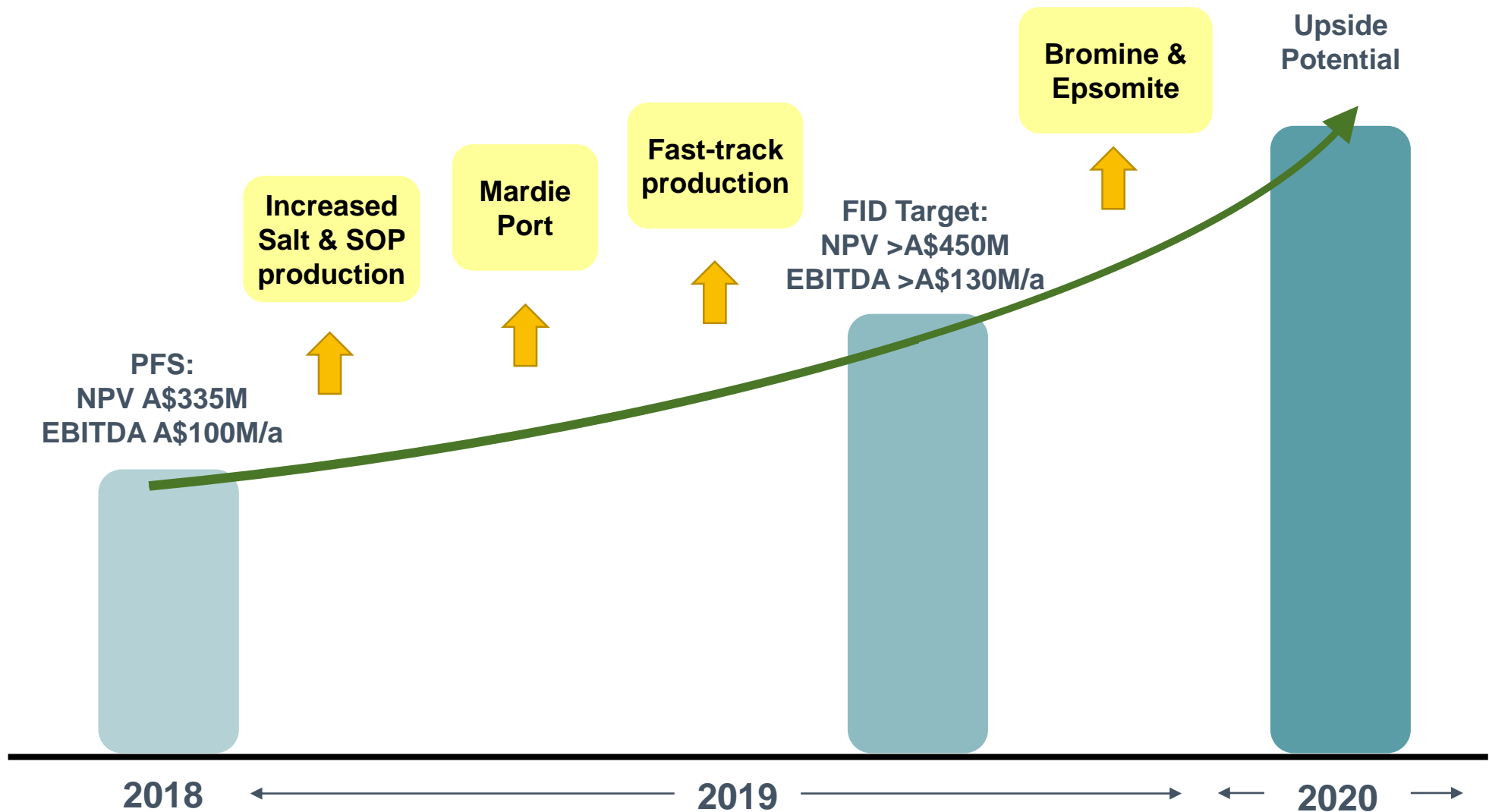
## Simplified SOP Cost Curve



- Large volume of high-cost Mannheim production underpins SOP pricing
- Mardie SOP as by-product, with large proportion of capex & opex “sunk” against salt production
- Mardie is 10x closer to port than inland brine SOP projects, minimising transport costs

# Project Improvement Initiatives

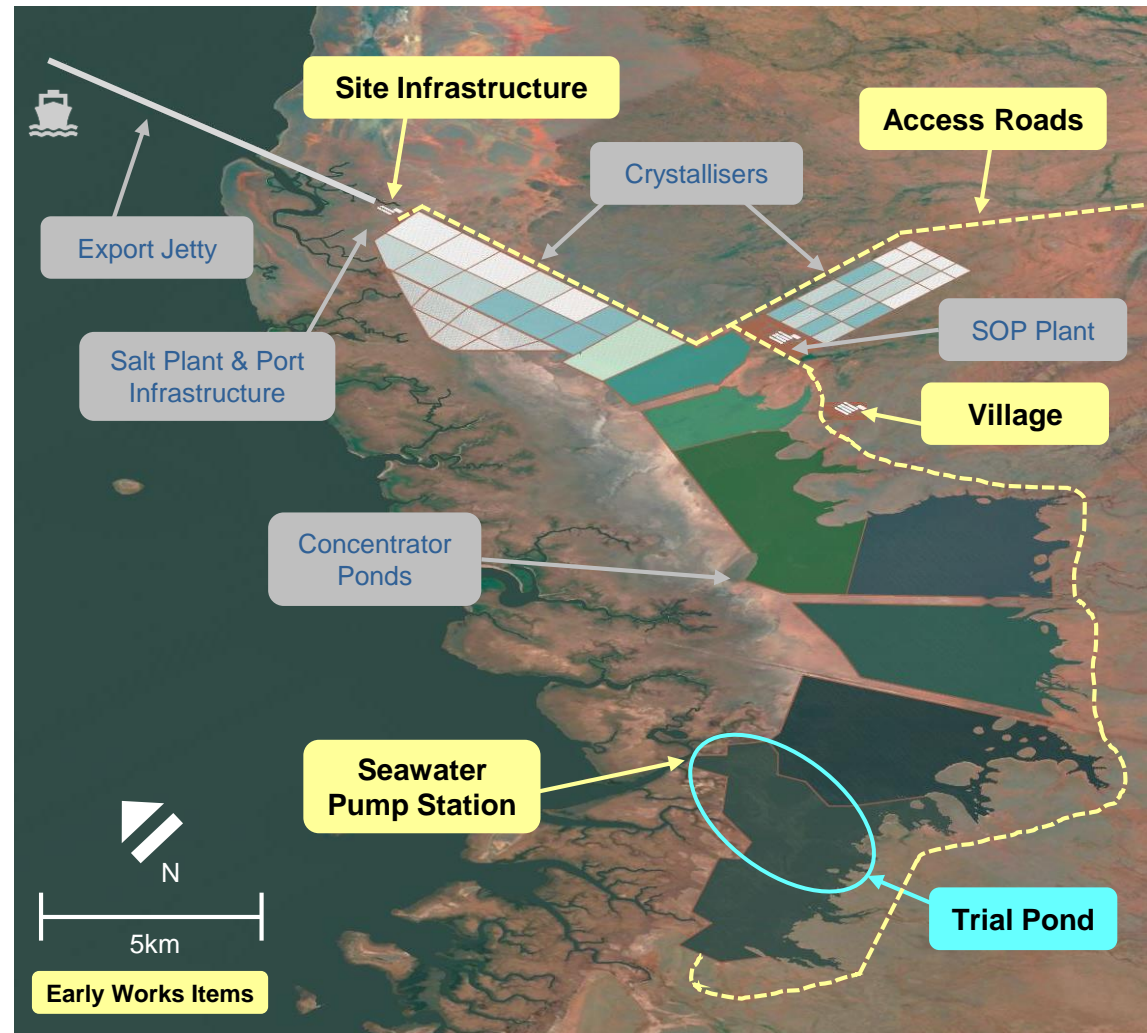
During 2019, fast track development of an improved business case



# Early Works in 2019

## Construct critical path elements in 2019 to accelerate development

- Construct important support infrastructure
  - Access roads; village; power & utilities
- Construct and operate a large trial pond
  - Validate wall construction methodology
  - Confirm mudflat permeability
  - Install water pumps and equipment
  - Utilise full Pond 1 wall alignment to minimise cost duplication
- Early works will de-risk project and reduce time to first salt sales by 12 months



# Approvals & Tenure Well Defined

## Environmental



- Environmental Scoping Document recently endorsed by EPA Board – formalises approvals process and timeline
- Significant studies completed and no material issues identified to date
- Environmental approvals on track for late 2019

## Heritage



- Existing land access deeds with Native Title claim groups

## Tenure



- Convert vast Exploration Licences to Mining Leases or State Agreement tenure
- Secure lease for an export facility at Mardie

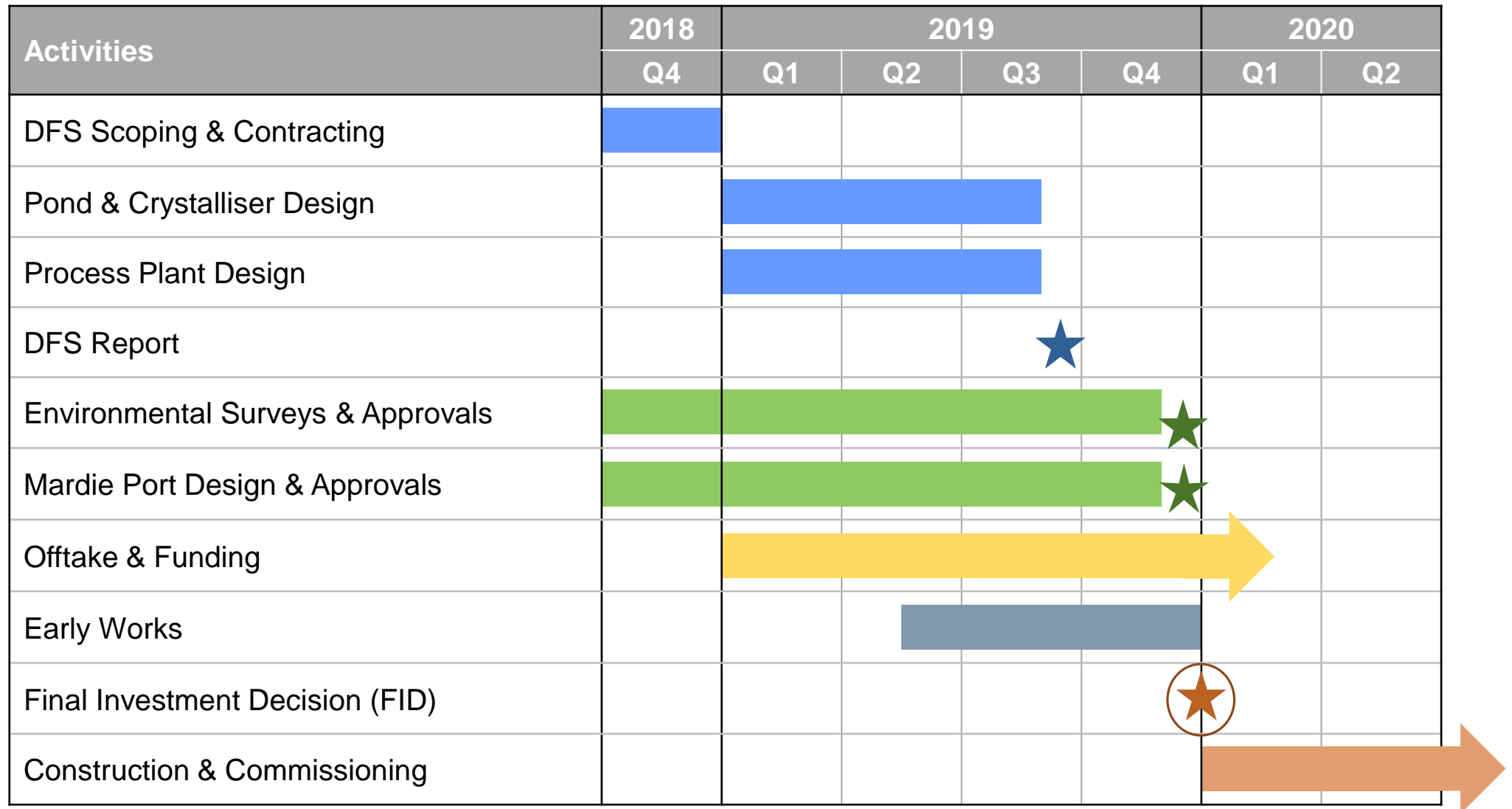
## Stakeholder Benefits



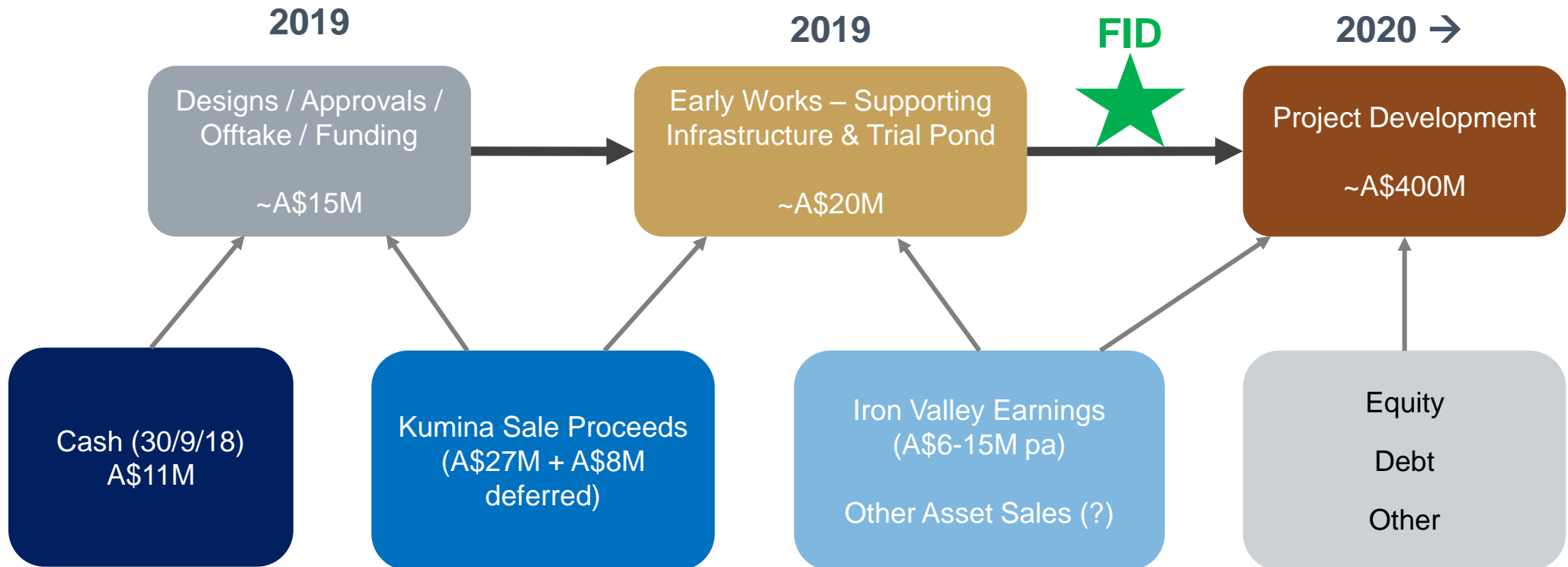
- ~\$1.5b corporate tax, ~\$250M State royalties, ~\$50M Native Title payments
- ~200 peak workforce and ~100 sustained workforce – significant regional and indigenous employment opportunities

# Mardie Timeline




**Final investment decision targeted by end-2019, allowing first salt sales in 2023**



# BCI is well funded to FID in late 2019



# Mardie – Unique Project Opportunity

1. **Strong market outlook for salt & SOP** 
2. **Tier 1 project – location, life, scale & costs** 
3. **BCI well funded and supported to accelerate Mardie's development during 2019** 

**Mardie offers significant value potential over many decades**



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*Driving Mardie Rapidly  
Towards Development*



# Appendix



# Corporate Information



## Capital Structure

Ordinary Shares	397.6M
Share Price (21-Nov-18)	\$0.135
<b>Market Capitalisation</b>	<b>\$53.7M</b>
Cash (30-Sep-18)	\$11.1M
Debt (30-Sep-18)	Nil

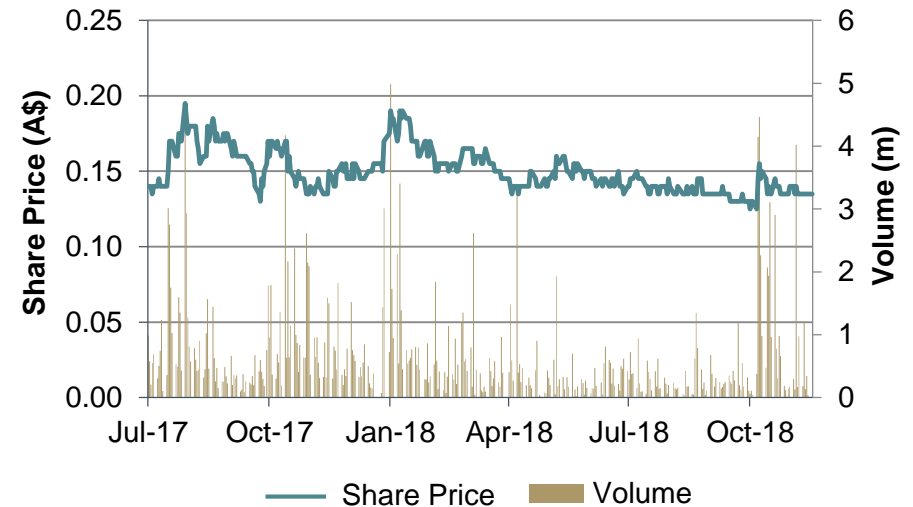
## Board and Management

Brian O'Donnell <i>(Non-Exec Chairman)</i>	Alwyn Vorster <i>(Managing Director)</i>
Michael Blakiston <i>(Non-Exec Director)</i>	Simon Hodge <i>(Chief Financial Officer)</i>
Jennifer Bloom <i>(Non-Exec Director)</i>	Michael Klvac <i>(GM Corporate Affairs)</i>
Martin Bryant <i>(Non-Exec Director)</i>	
Andy Haslam <i>(Non-Exec Director)</i>	

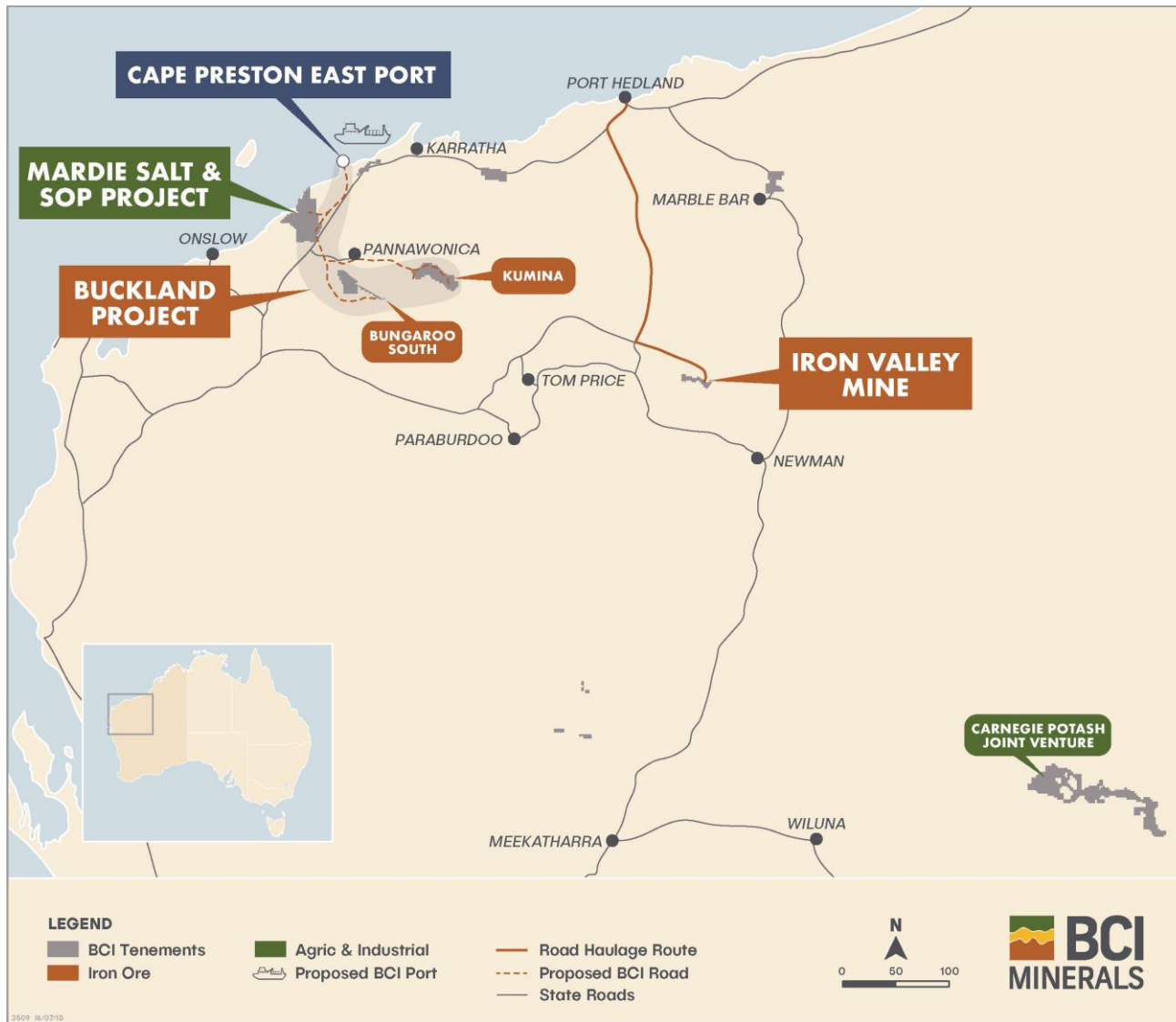
## Shareholding and Trading

Wroxby Pty Ltd	27.6%
Top 20 Shareholders	~49%
Number of Shareholders	~7,100
Ave Daily Volume (Last 6 Months)	~500,000

## Share Price and Volume



# Project Locations



# Iron Valley Mine – Royalty Earnings

- Quarterly earnings for BCI via royalty agreement with Mineral Resources Ltd (MIN)
  - Underlying BCI EBITDA of ~A\$8M in FY18 and ~A\$16M in FY17
- 6-8Mtpa iron ore operation; 50% lump production; potential mine life of ~15 years
- Average ore grade: Lump 60% Fe; Fines 58% Fe
- Upside for BCI from MIN's Bulk Ore Shuttle System (BOSS)<sup>1</sup>
  - Lightweight, narrow gauge rail system with fully autonomous operation
  - Lower opex improves financial viability
  - Potential construction start in 1H CY19
  - Potential to double production rates to 15Mtpa (**higher royalty payment to BCI**)



1. Refer to MIN announcement dated 8-Jun-18, page 9 of MIN's Macquarie Australia Conference Presentation (2-May-18) page 11 of MIN's FY18 Half-Year Results Presentation (8-Feb-18) for further details



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