

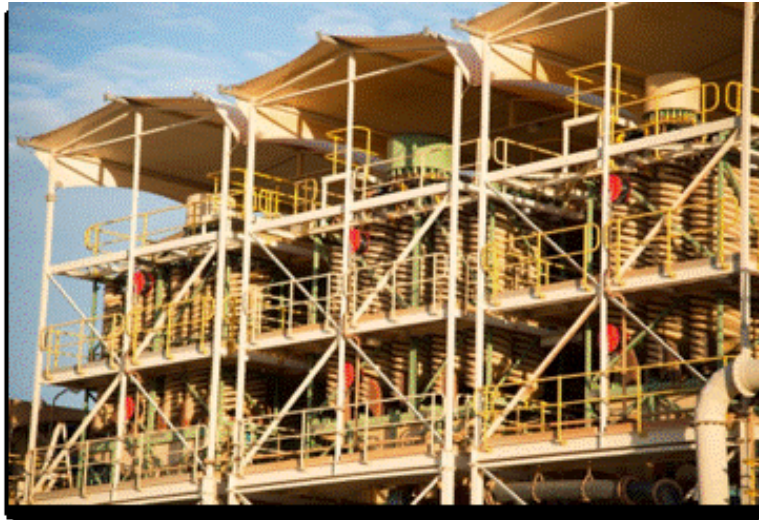
# **Boonanarring Mineral Sands Project: The next cab off the mineral sands rank**

**Noosa Mining Conference**

**19-21 July 2017**

**Peppers Noosa Resort**

**Noosa, QLD**



**Patrick Mutz**

*Managing Director*

**Image Resources NL**

**ASX: IMA**



# Forward Looking Statement

Certain statements made in connection with this communication, including, without limitation, those concerning the economic outlook for the mining industry, expectations regarding prices, exploration or development costs and other operating results, growth prospects and the outlook of Image's operations contain or comprise certain forward looking statements regarding Image's operations, economic performance and financial condition. Although Image believes that the expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to be correct.

Accordingly, results could differ materially from those set out in the forward looking statements as a result of, among other factors, changes in economic and market conditions, success of business and operating initiatives, changes that could result from future acquisitions of new tenements, the risks and hazards inherent in the mining business (including industrial accidents, environmental hazards or geologically related conditions), changes in the regulatory environment and other government actions, risks inherent in the ownership, exploration and operation of or investment in mining properties, fluctuations in prices and exchange rates and business and operations risks management, as well as generally those additional factors set forth in our periodic filings with ASX. Image undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect future events or circumstances or to reflect the occurrence of unanticipated events.

**Image Resources NL**

**ASX: IMA**

**Emerging mineral sands producer**

Actively focused on **fast-tracking the development** of its **100%-owned, high-grade and high-zircon flagship Boonanarring mineral sands project** in the **North Perth Basin** in Western Australia.

**First production targeted for early 2018.**

**CONVENTIONAL, CONVENTIONAL, CONVENTIONAL**

Dry open cut mining

Coarse grained mineralisation

Standard suite of products



## LOCATION

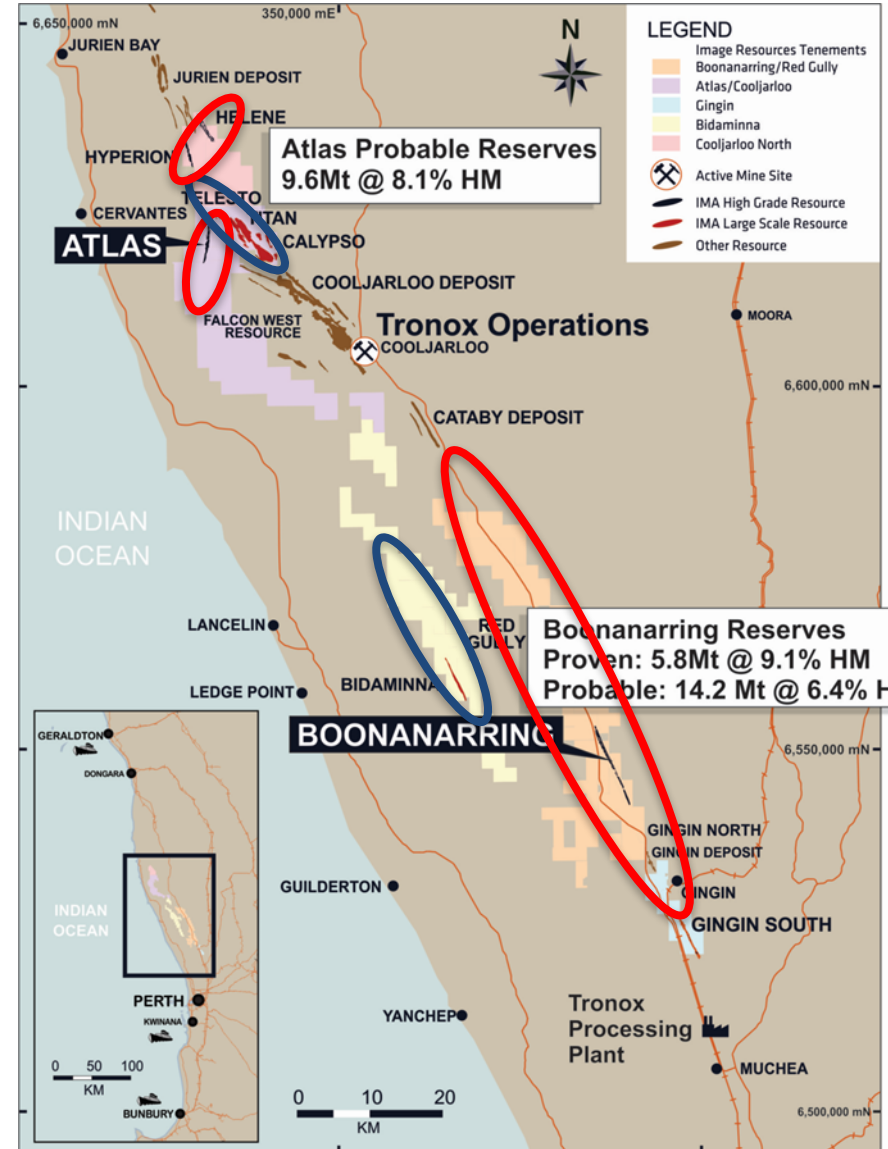
- North Perth Basin in Western Australia
- 80 km north of Perth CBD
- Proven mineral sands address
  - Including majors Iluka and Tronox
- Infrastructure rich
  - paved roads, power, gas pipeline water, telecommunications etc.
- Local communities and landowners experienced with, and accepting of, mineral sands mining.





# Projects Types and Locations

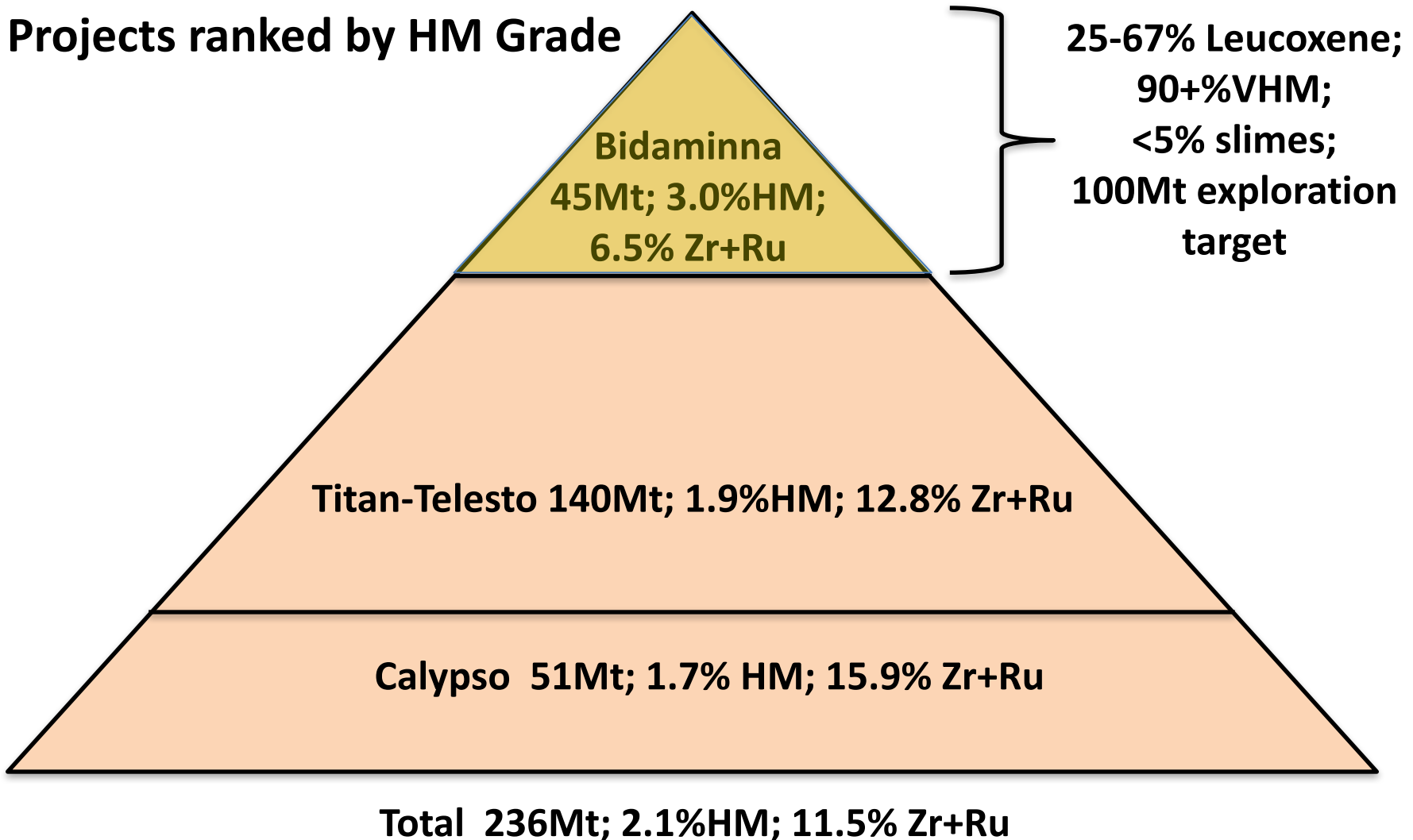
- 1,000 km<sup>2</sup> tenements portfolio
- 100% focus on mineral sands
- Strandline (dry open cut mining) projects
- Dredge mining projects



# Projects Pyramid - Dredgeable

## Mineral Resources – Accessible by Dredge Mining

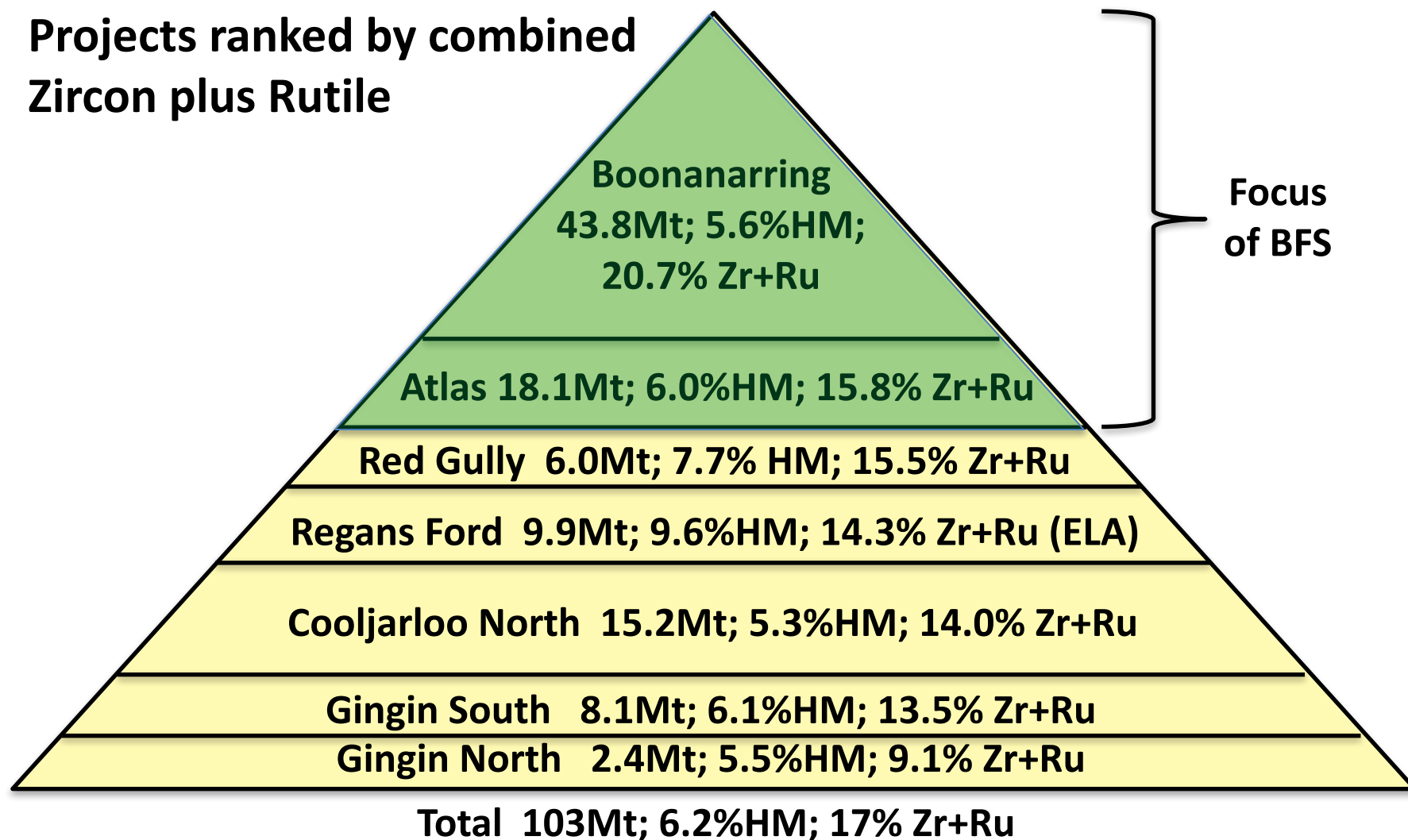
### Projects ranked by HM Grade



# Projects Pyramid – Strand Deposits

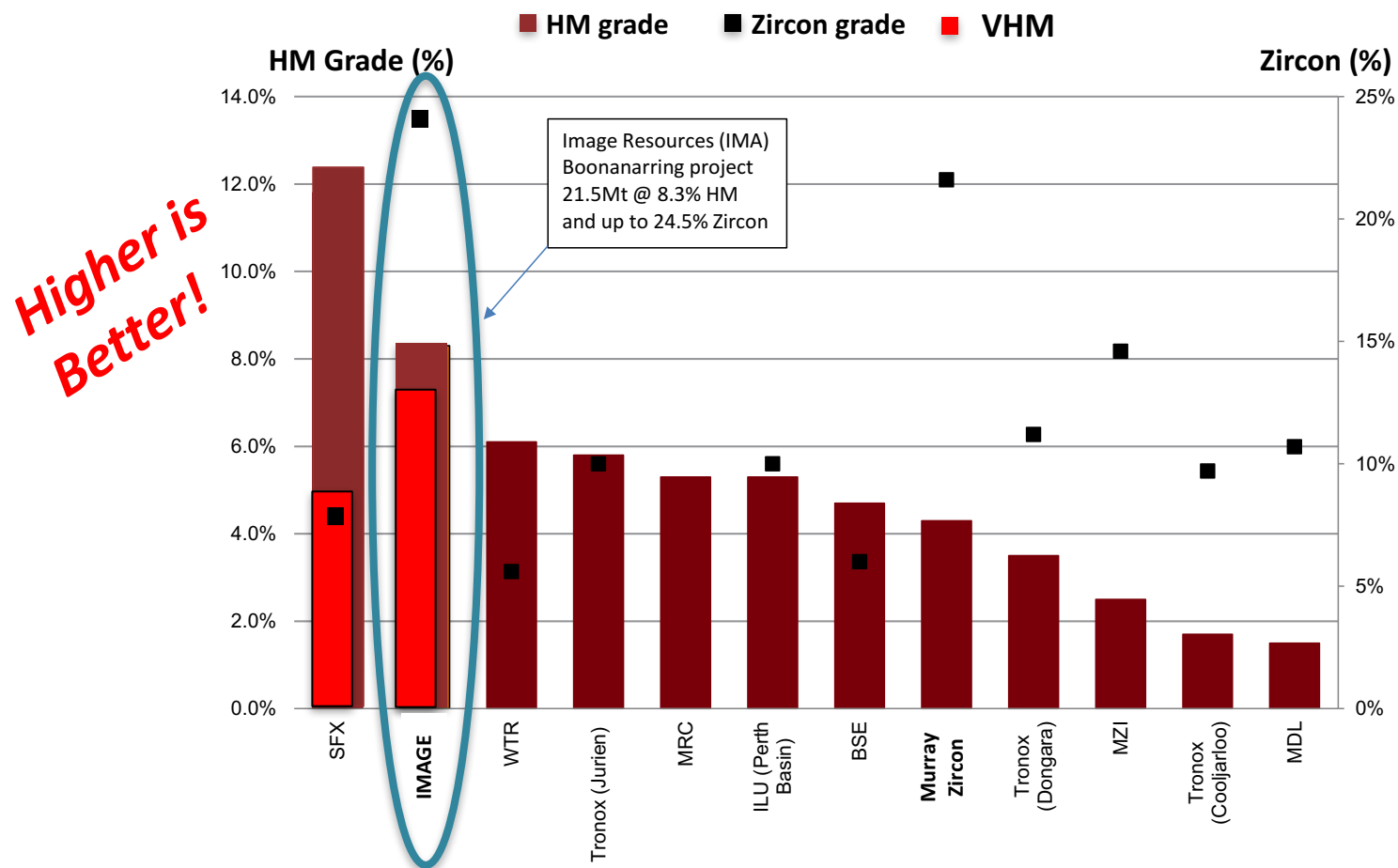
Mineral Resources – Accessible by Dry Open-Cut Mining

Projects ranked by combined  
Zircon plus Rutile



# Boonanarring Project Comparison

## High HM, VHM and Zircon grades relative to peers



Source: Released on 4<sup>th</sup> May 2015 – Morgan's Research Note. VHM added by Image.

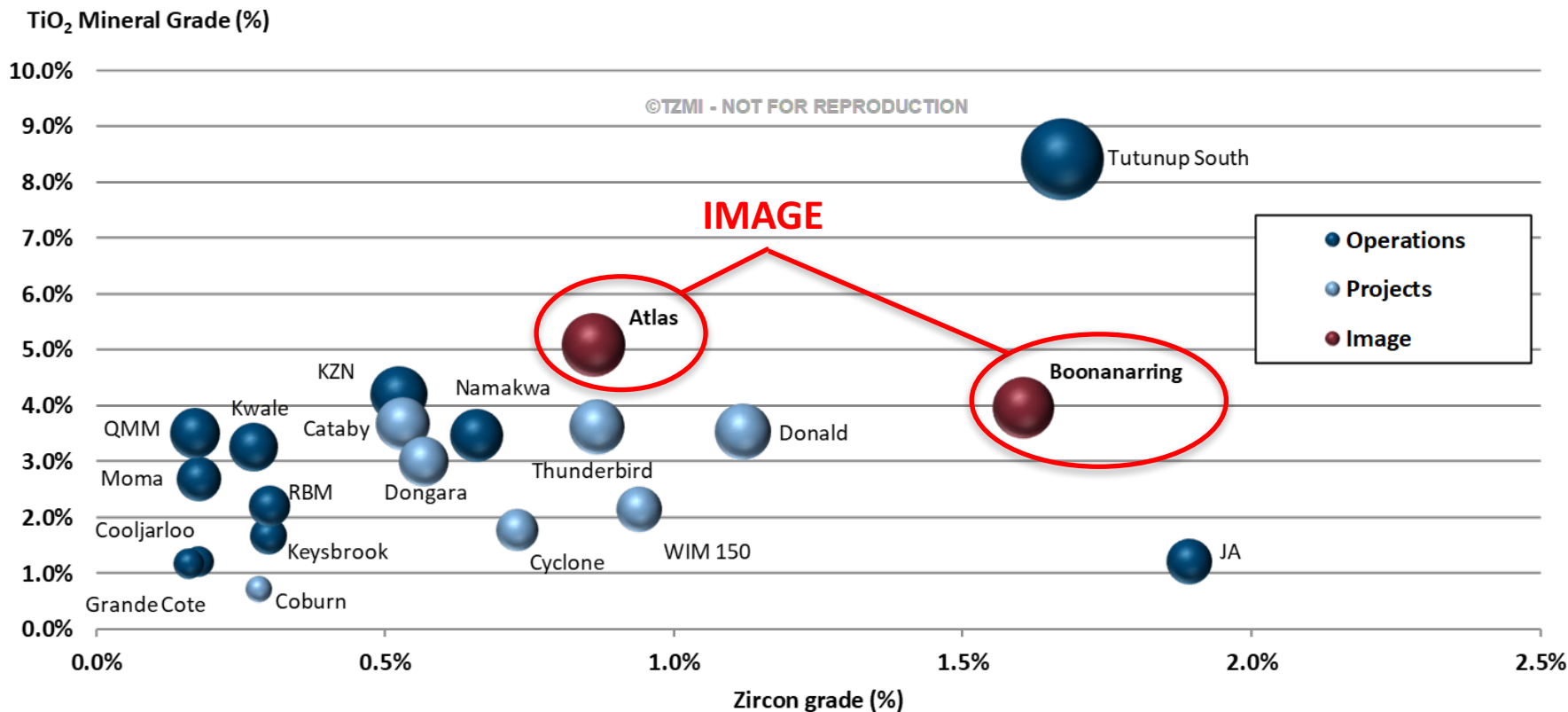


## QUALITY ORE RESERVES

- JORC Code (2012) Compliant
- High HM, VHM and very high zircon at Boonanarring

(2012)											
Reserve	Category	Volume	Tonnes	% HM	% SLIMES	HM Tonnes	VHM (%)	Ilmenite (%)	Leucoxene (%)	Rutile (%)	Zircon (%)
Boonanarring <sup>2</sup>	Proved	3,125,000	5,829,000	9.1	14.2	527,000	74.2	48.5	1.9	2.2	21.6
Boonanarring <sup>2</sup>	Probable	7,460,000	14,155,000	6.3	17.4	905,000	79.3	52.2	1.7	2.6	22.8
<b>Total Boonanarring</b>		<b>10,585,000</b>	<b>19,984,000</b>	<b>7.2</b>	<b>16.5</b>	<b>1,432,000</b>	<b>77.4</b>	<b>50.8</b>	<b>1.8</b>	<b>2.4</b>	<b>22.4</b>
Atlas <sup>2</sup>	Probable	5,000,000	9,477,000	8.1	15.5	770,000	73.3	50.7	4.5	7.5	10.6
<b>Total Atlas</b>		<b>5,000,000</b>	<b>9,477,000</b>	<b>8.1</b>	<b>15.5</b>	<b>770,000</b>	<b>73.3</b>	<b>50.7</b>	<b>4.5</b>	<b>7.5</b>	<b>10.6</b>
<b>Total Ore Reserves</b>		<b>15,585,000</b>	<b>29,461,000</b>	<b>7.5</b>	<b>16.2</b>	<b>2,202,000</b>	<b>76.0</b>	<b>50.8</b>	<b>2.7</b>	<b>4.2</b>	<b>18.3</b>

# Ore Reserves Comparison



**Note:**

- TiO<sub>2</sub> mineral grade represents the in-ground grade of titanium minerals (ilmenite, leucoxene and rutile)
- Zircon grade represents the in-ground grade of zircon
- Size of bubble represents the VHM grade (ilmenite, leucoxene, rutile and zircon).
- Data includes Proved and Probable Ore Reserves.
- Hard rock deposits are excluded from the analysis

Source: TZMI; May 2017

## Base Assumptions

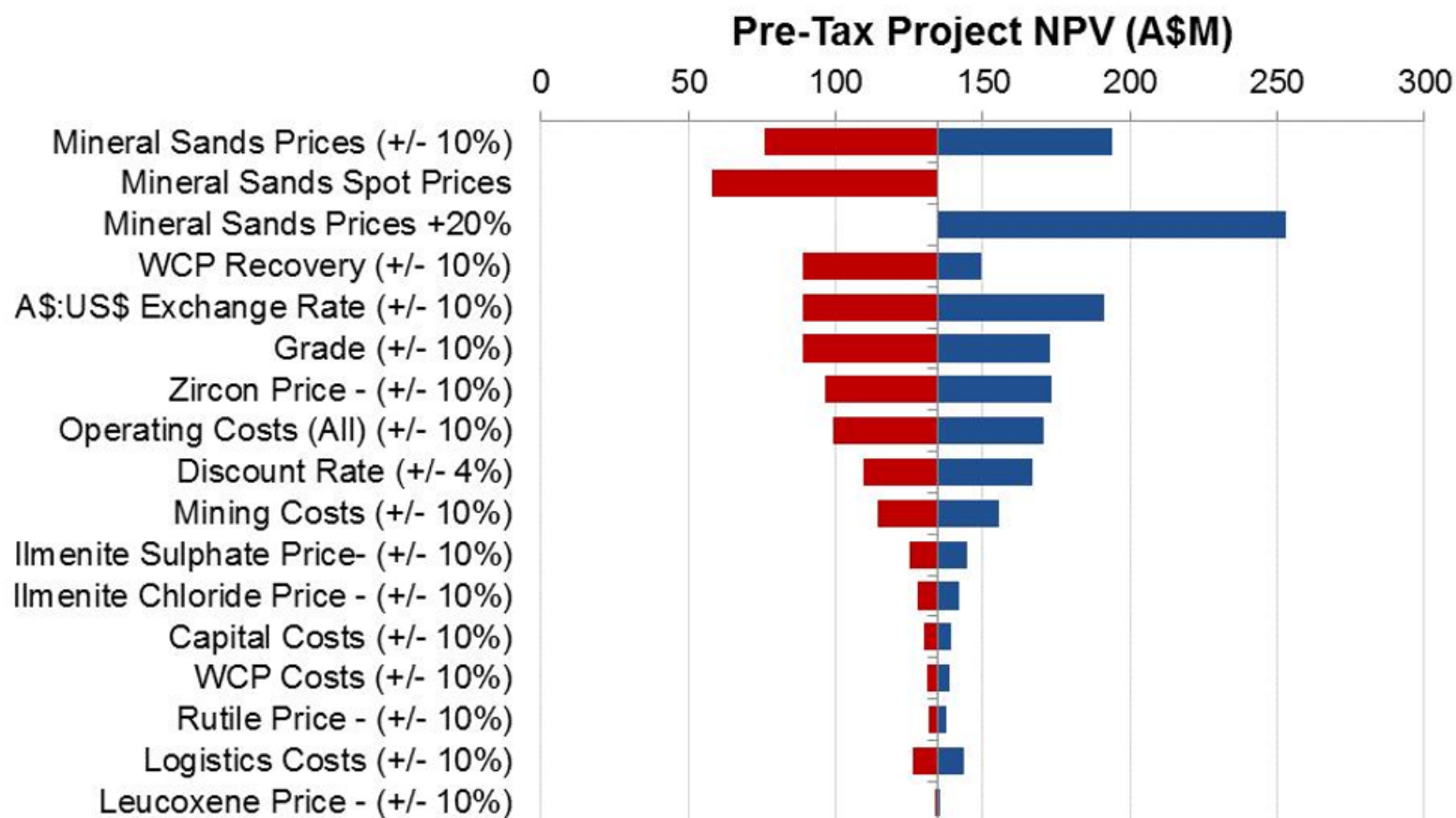
- Start mining at Boonanarring
- Dry, open-cut mining
- Production rate - 500 dry tonnes per hour
  - 3.7M dry tonnes per year
- Conventional gravity separation using spirals
- Product: Heavy Mineral Concentrate (HMC)
  - Production rate: avg. approx. 220K tonnes/annum
  - Truck to Bunbury for bulk shipments to China

## Key Financial Metrics<sup>1</sup>

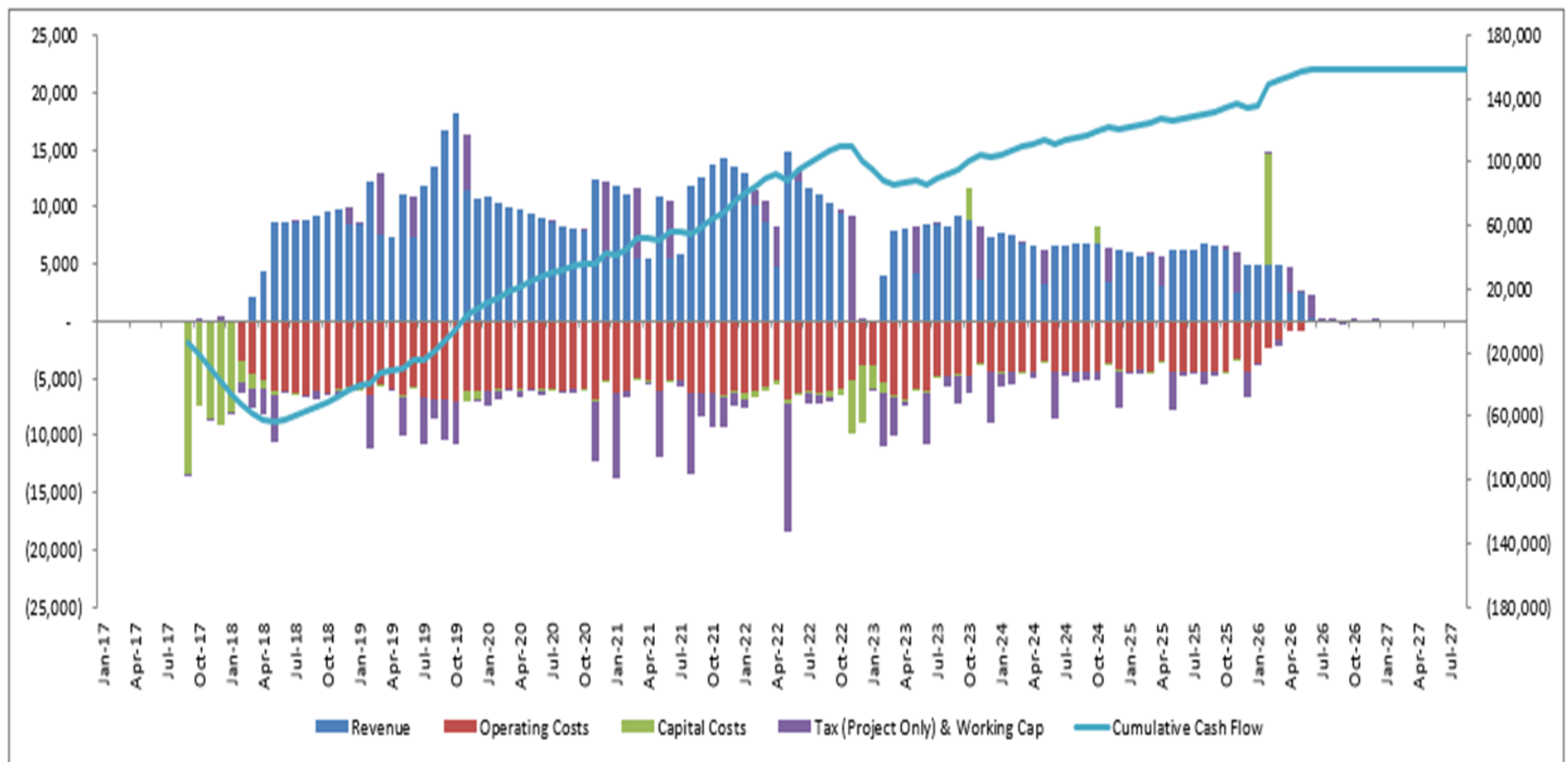
- Pre-Tax NPV A\$135M (8% discount rate)
- Pre-Tax IRR 64%
- Mine life 8+ years
- Project capital cost A\$52M
  - includes ~\$8M for land
- Payback period 22 months



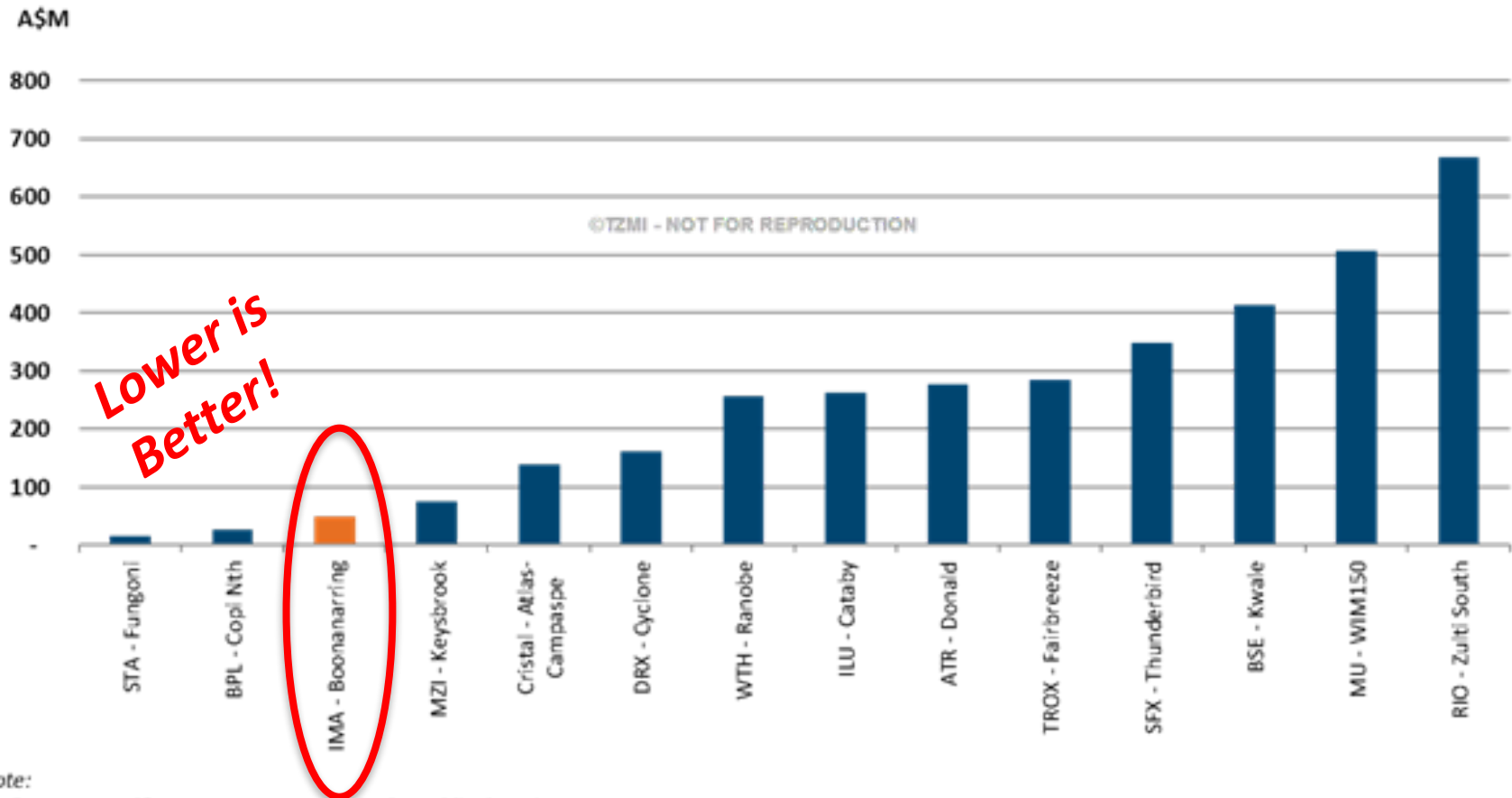
## Sensitivity Analysis



## Monthly Revenue, Costs and Cash Flow



# Project Capital Comparison



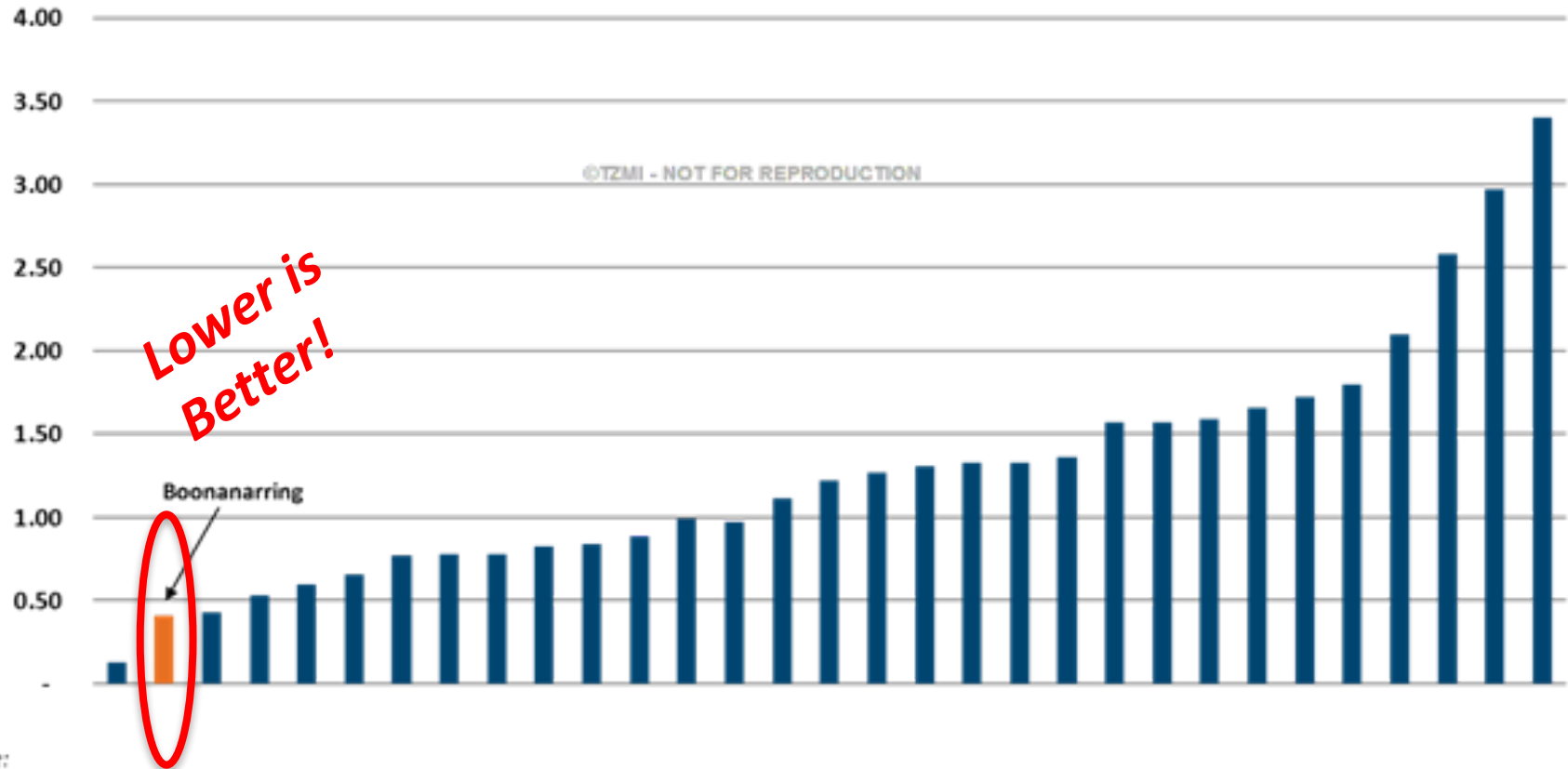
Note:

- Data sourced from company reports in the public domain.
- United States dollar capital costs are converted to Australian Dollars using an exchange rate of 0.75 (AUD:USD).
- Cataby has a range of A\$250M to A\$275M, midpoint used in this analysis.
- Ranobe capital cost is based on the 2012 DES estimate.

Source: TZMI; May 2017

# Start-up Capital / Revenue Ratio

Start-up capital / Revenue ratio



Note:

- Capital intensity is measured as start-up capital divided by the maximum annual revenue.
- Based on TZMI analysis using TZMI price forecasts and modelling except for Boonanarring which is based on Image physicals, operating and capital costs.
- 31 advanced projects are included varying from brownfield to greenfield projects.

Source: TZMI; May 2017

## Other Key Project Metrics

- **Binding offtake contract** for heavy mineral concentrate (HMC)
  - **100% of production for life of project**
  - Market-based pricing model
  - Full credit for TiO<sub>2</sub> products
  - No minimum product specifications
- **Capital equipment already acquired**
  - From run-of-mine ore feed through to HMC product



# Plant and Equipment (select examples)



Wet Concentration Plant



Mineral Separation Plant (Option)



Slurry Booster Stations  
& pipelines



HMC Stackers



Power poles, wires  
& transformers



Mine Slurry Unit

Plus much, much more.



# Image Wet Concentration Plant



## Advantages of HMC Offtake vs Zircon Offtake

- results in securing 100% of revenue instead of 65-70% for zircon only;
- provides faster access to revenue;
  - letters of credit can be converted to cash as soon as each shipment of HMC departs the Bunbury port, compared to having to wait until the HMC is processed into final products and the zircon is loaded and departs the port of loading;
- reduces total working capital requirements by A\$7-8M (due to the faster receipt of revenue); and
- eliminates risks and potential extra costs associated with HMC processing (separation) including processing and delivery schedules, product quality issues, administration and marketing.
- Reduces overall project capital (no capital contribution for HMC processing)



## **Upside potential at and near Boonanarring**

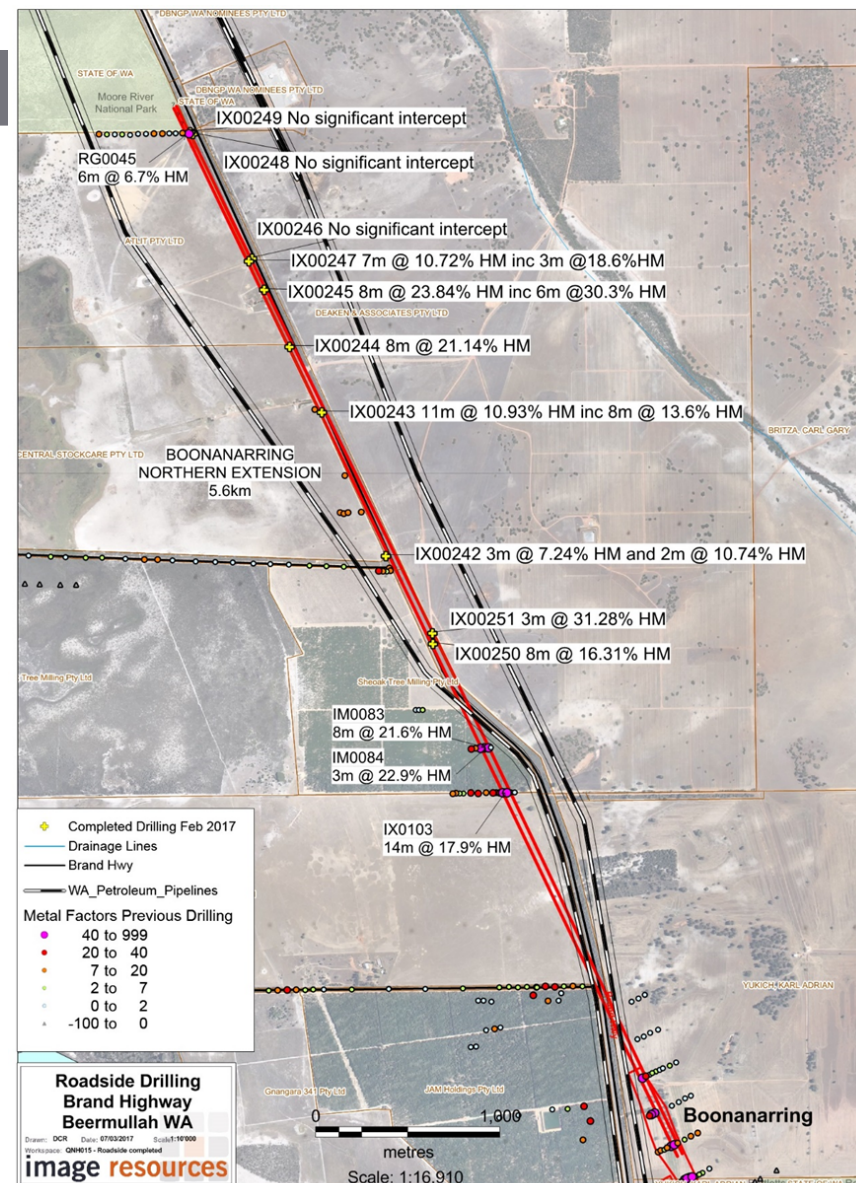
- Confirmed potential to extend mine life with high grade mineralisation;
- Potential to process lower grade overlying layer of mineralisation;
- Several other deposits with high grade mineral resources in the vicinity.

# Boonanarring Deposit Extensions

## ASX Announcement 13 March 2017

### New Drilling Results (Feb 2017)

- Confirm 5.6km northern extension of Boonanarring mineralisation
- Outstanding high-grade intersections:
  - 8m @ 23.8% HM in IX00245
  - 8m @ 21.1% HM in IX00244 and
  - 8m @ 16.3% HM in IX00250



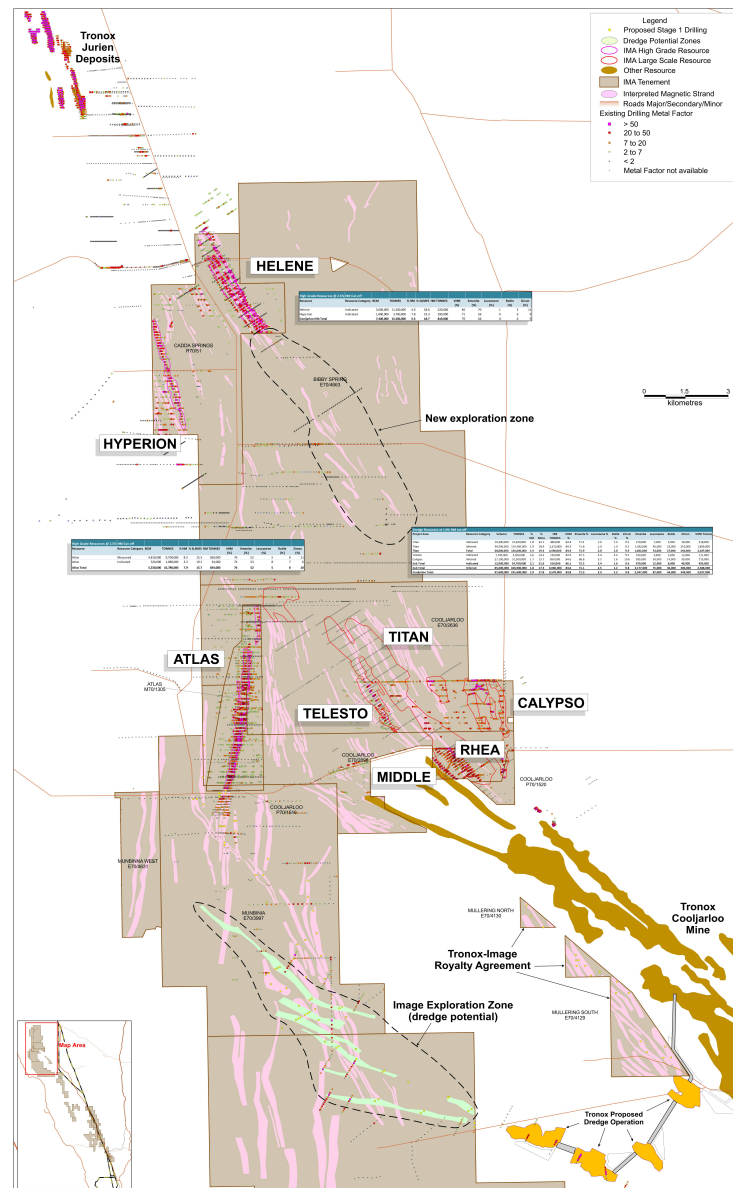
# Potential Royalty from Tronox

## Royalty agreement in place as of

- A\$50,000 cash received
- Sliding-scale royalty on production

<u>Avg. HM Grade</u>	<u>Royalty</u>
2.5%	1.25%
3.0%	2.50%
3.5%	3.75%
4.0%	5.00%

- Potential for future arrangements with Tronox or others based on large area of potential dredge mining mineralisation within Image's tenements in the vicinity of Tronox's historic dredge operations.





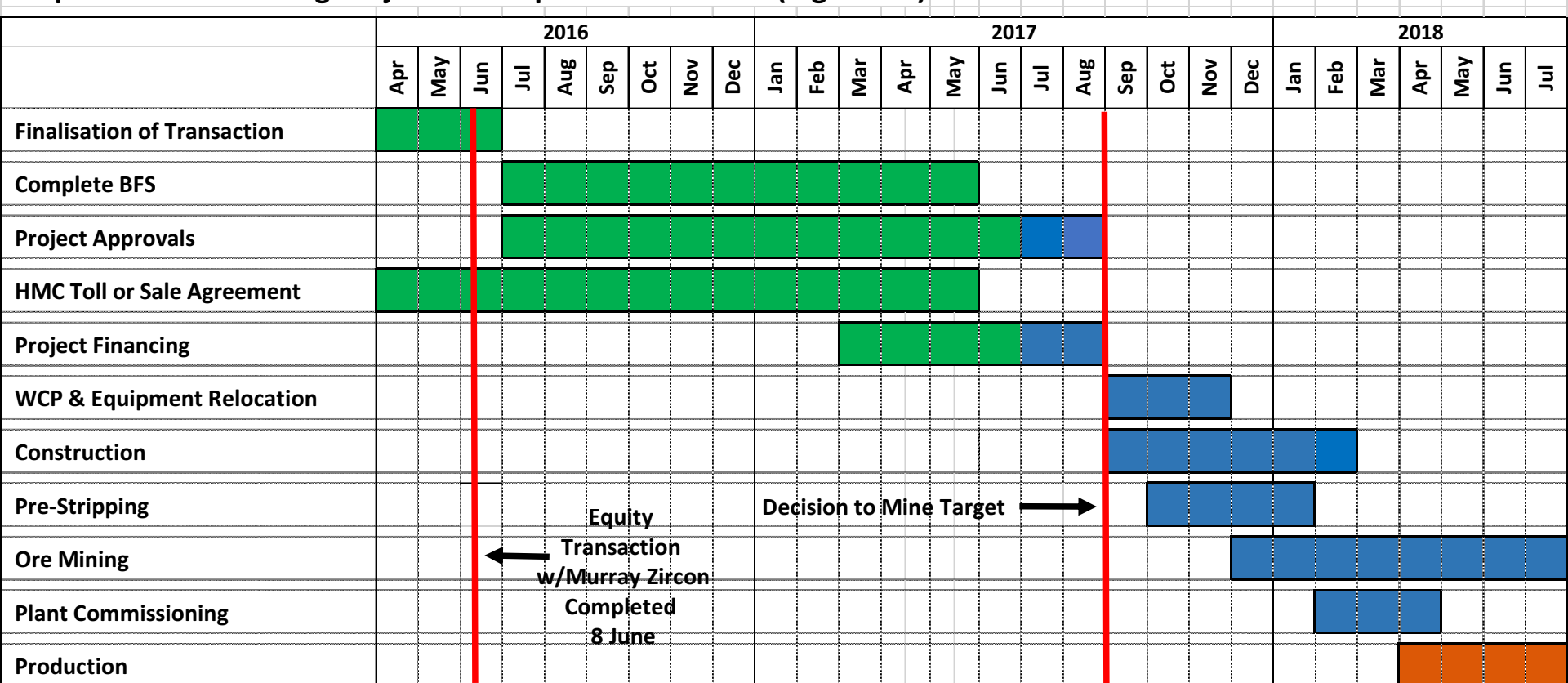
## PROJECT APPROVALS

- ☒ Mining Lease & General Purpose Lease
- ☒ Part IV, Environmental Protection Act (WA) – PER
- ☒ EPBC Act (Commonwealth)
- ☒ Land acquisition for processing plant siting
- ☒ Groundwater Abstraction Licence (Dept of Water and Dept Parks & Wildlife)
- ☒ Interim groundwater licence – site establishment (DoW)
- ☒ Mining Proposal – incl. MCP, EMS & ASS Mgmt Plan (DMP)
- ☐ Works Approval (Dept of Environment Regulation) **Application filed**
- ☐ Project Management Plan/Radiation Management Plan (DMP) **Plan filed**
- ☒ Atlas Project Gap Analysis – Environmental Studies & Approvals

# Project Development Schedule

Targeting first production in early 2018

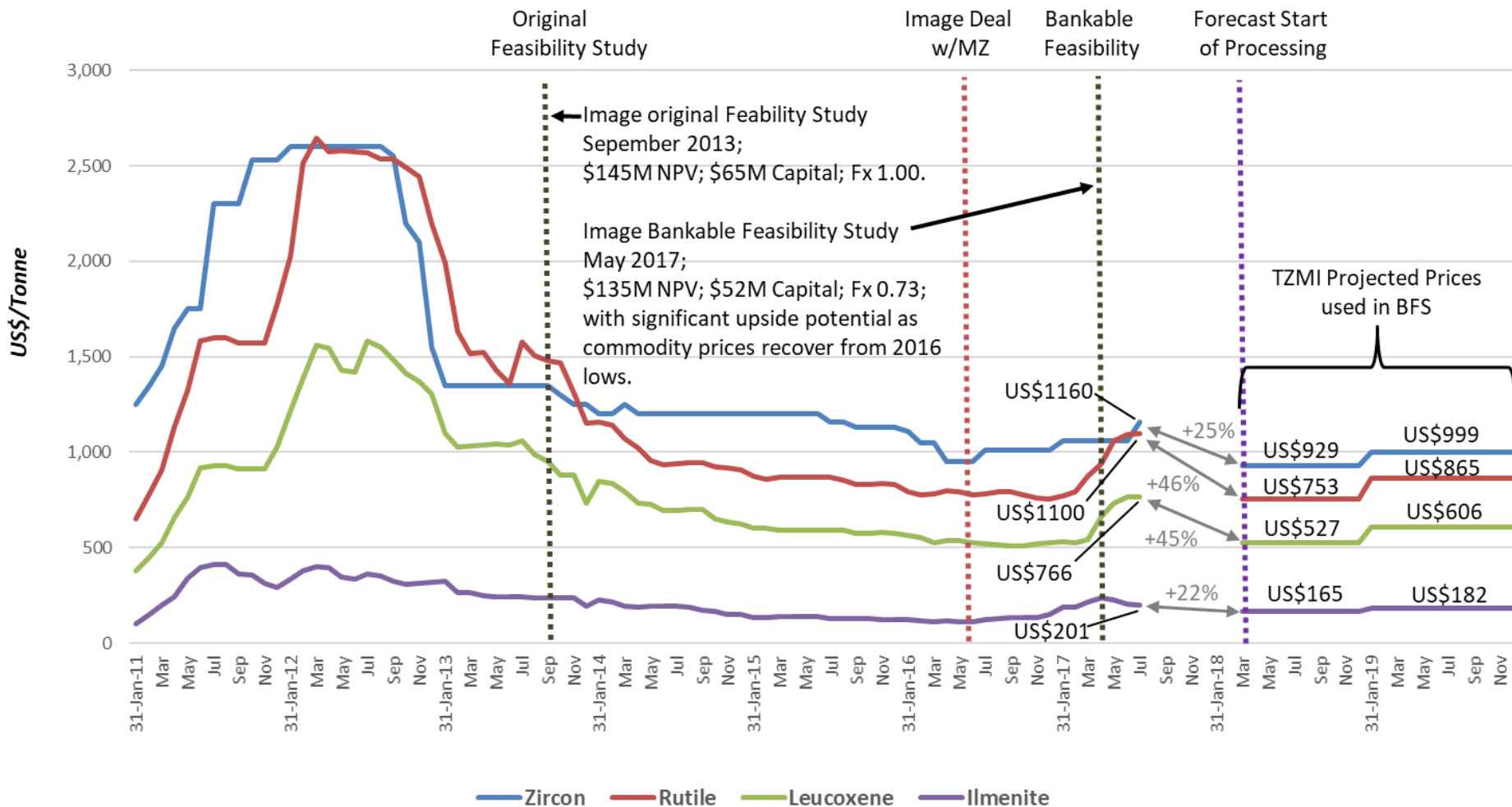
Simplified Boonanarring Project Development Schedule - (high level)



# Historic Commodity Pricing

26

## Historic Mineral Sands Commodity Spot Prices and BFS Price Assumptions



# Commodity Prices on the Rise

27

Zircon-

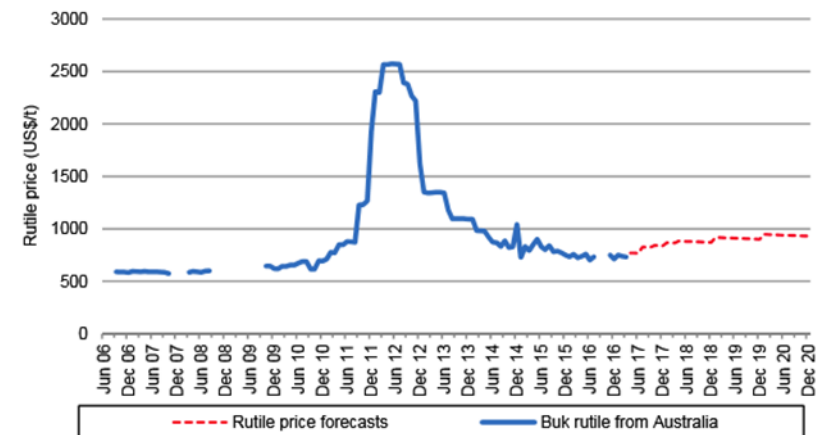
We forecast two more quarterly increases of +\$100/t and then two further \$50/t increases. That would take the price from around \$860/t at the start of 2017, to \$1350/t by 2H18, our forecast price peak.  
(Source: FNZC Market Daily, 29 May 2017)  
(Credit Suisse)

Figure 3: Zircon price—historic and forecast in real (2017) terms



Source: TZMI, Credit Suisse estimates

Figure 11: Rutile prices historic & forecast in Real (2017) terms



Source: TZMI, Credit Suisse estimates

Rutile price forecast lifted from 2019  
(Source: FNZC Market Daily, 29 May 2017)



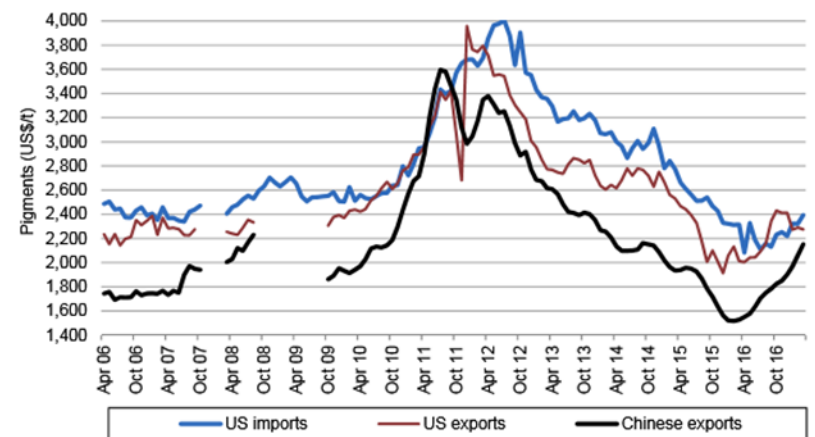
# Commodity Prices on the Rise

28

We increase our ilmenite forecasts and now expect them to double YoY by 3Q17. Given the Chinese impetus behind ilmenite, we forecast ilmenite prices will essentially double in 2017, from \$80/t in early 2016 to \$160/t FOB by 3Q17. **We see further increases towards \$200/t by 2019, due to expected ongoing solid demand from China.** (Source: FNZC Market Daily, 29 May 2017)

TiO<sub>2</sub> pigments – pigment price rise picking up pace. Price increases are getting stronger and a new round of price hikes is coming by mid-year. Cristal announced global price rises of \$250/t for most regions, and €350/t in Europe. (Source: FNZC Market Daily, 29 May 2017)

Figure 6: Global pigment prices in Real (2017) terms



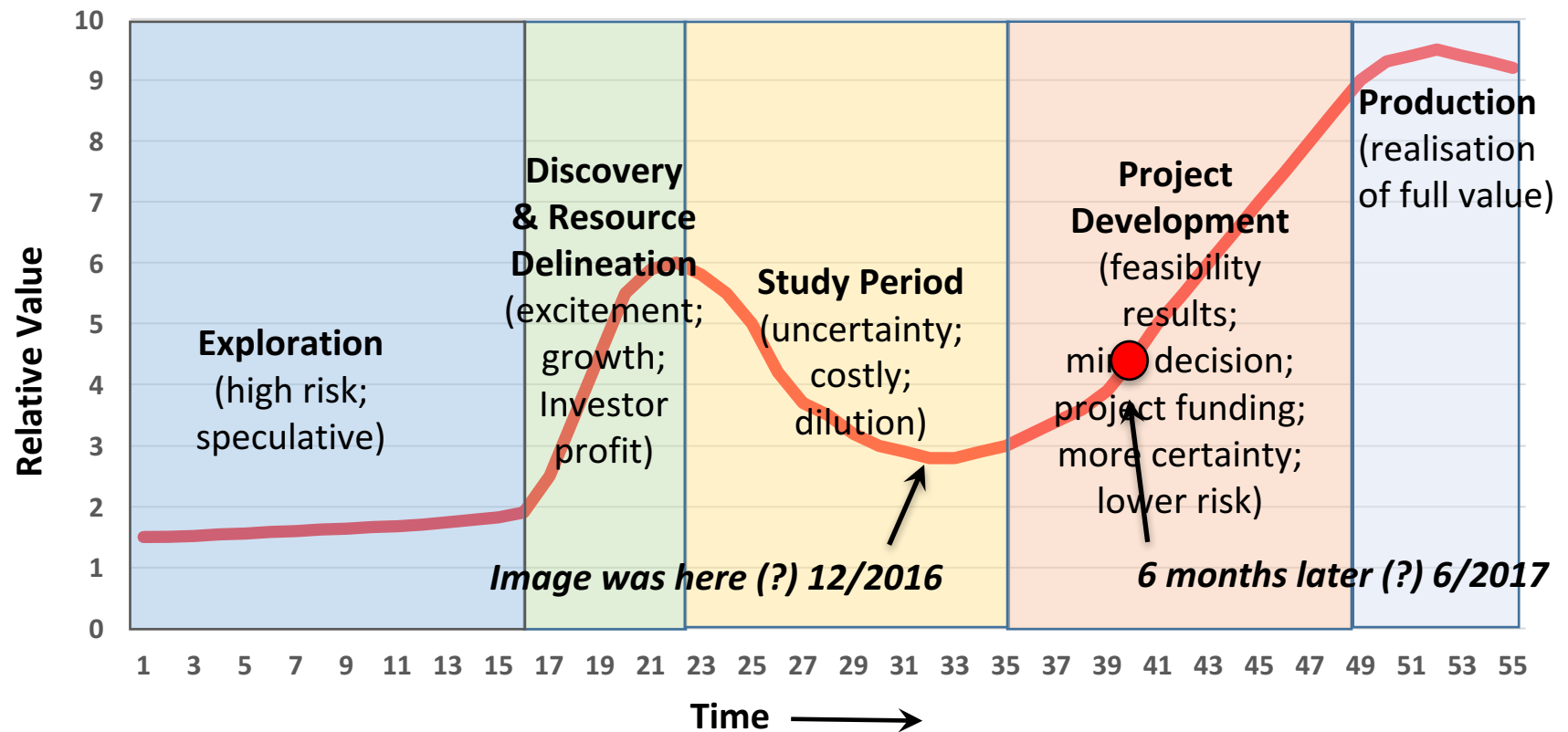
Source: TZMI, Credit Suisse estimates



# Transition from Explorer to Producer

29

## Generalisation of Transition from Explorer to Producer



## Diverse and experienced Board and Management

Share Code:	<b>IMA</b>
Share Price:	<b>A\$0.10*</b>
12 Month Price Range:	<b>A\$0.04 – 0.12</b>
Shares on Issue:	<b>537.6m</b>
Market Cap:	<b>A\$52m*</b>
Cash on hand:	<b>A\$1.4m**</b>
Debt (short-term):	<b>A\$4.0m</b>
Top 20 Shareholders:	<b>68%</b>

### Board of Directors

Bob Besley – Independent Chairman  
Patrick Mutz – Managing Director  
Chaodian Chen - Non-Executive Director  
Aaron Chong Veoy Soo – Non-Executive Dir  
George Sakalidis – Executive Director  
Peter Thomas – Non-Executive Director  
Fei (Eddy) Wu – Non-Executive Director

### Key Management

Patrick Mutz – CEO  
George Sakalidis – Exploration Director  
John McEvoy – Chief Financial Officer  
Todd Colton – General Manager – Dev.



\* - as at 10 July 2017

\*\* - as at 30 June 2017; \$3M placement announced 12 July



**Patrick Mutz**  
*Managing Director*  
**Image Resources NL**

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## **COMPLIANCE STATEMENT FOR BOONANARRING AND ATLAS DEPOSITS ORE RESERVES**

The Ore Reserves statements for the Atlas and Boonanarring deposits have been compiled in accordance with the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code – 2012 Edition). The Ore Reserves have been compiled by Jarrod Pye, Mining Engineer and full-time employee of Image Resources, under the direction of Andrew Law of Optiro, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Law has sufficient experience in Ore Reserves estimation relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Mineral Resources and Ore Reserves”. Mr Law consents to the inclusion in the report of the matters compiled by him in the form and context in which it appears.

## **COMPLIANCE STATEMENT FOR EXPLORATION**

Information in this presentation that relates to Exploration Results is based on information compiled by George Sakalidis BSc (Hons) who is a member of the Australasian Institute of Mining and Metallurgy. At the time that the Exploration Results, Mineral Resources and Mineral Reserves were compiled, George Sakalidis was a director of Image Resources NL. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. George Sakalidis consents to the inclusion of this information in the form and context in which it appears in this report.

# Mineral Resources – Strand Deposits

## Strand Deposits 1 of 2

High Grade Mineral Resources - Strand Deposits; in accordance with the JORC Code (2012) @ 2.0% HM Cut-off											
Project/Deposit	Category	Volume	Tonnes	% HM	% Slimes	HM Tonnes	VHM (%)	Ilmenite (%)	Leucoxene (%)	Rutile (%)	Zircon (%)
Boonanarring <sup>1</sup>	Measured	4,105,263	7,800,000	8.2	14	639,600	71.5	47.3	1.9	2.2	20.1
Boonanarring <sup>1</sup>	Indicated	13,736,842	26,100,000	5.3	18	1,383,300	73.3	49.6	2.0	2.5	19.2
Boonanarring <sup>1</sup>	Inferred	5,210,526	9,900,000	4.5	21	445,500	69.2	50.3	3.5	3.5	11.9
<b>Boonanarring Total</b>		<b>23,052,632</b>	<b>43,800,000</b>	<b>5.6</b>	<b>18</b>	<b>2,468,400</b>	<b>72.1</b>	<b>49.1</b>	<b>2.2</b>	<b>2.6</b>	<b>18.1</b>
Atlas <sup>1</sup>	Measured	5,210,526	9,900,000	7.9	16.1	782,000	71.0	49.1	4.2	7.2	10.5
Atlas <sup>1</sup>	Indicated	3,368,421	6,400,000	3.7	17.3	237,000	56.5	41.6	3.4	4.7	6.8
Atlas <sup>1</sup>	Inferred	947,368	1,800,000	4.0	19.9	72,000	41.5	29.0	3.3	4.4	4.8
<b>Atlas Total</b>		<b>9,526,316</b>	<b>18,100,000</b>	<b>6.0</b>	<b>16.9</b>	<b>1,091,000</b>	<b>65.9</b>	<b>46.1</b>	<b>4.0</b>	<b>6.5</b>	<b>9.3</b>
<b>Sub-Total Atlas/Boonanarring</b>		<b>32,578,947</b>	<b>61,900,000</b>	<b>5.7</b>	<b>17.7</b>	<b>3,559,400</b>	<b>70.2</b>	<b>48.2</b>	<b>2.8</b>	<b>3.8</b>	<b>15.4</b>

# Mineral Resources – Strand Deposits

## Strand Deposits 2 of 2

Previously Reported Mineral Resources - Strand Deposits; in accordance with JORC Code (2004) @ 2.5% HM Cut-off											
Project/Deposit	Category	Volume	Tonnes	% HM	% Slimes	HM Tonnes	VHM (%)	Ilmenite (%)	Leucoxene (%)	Rutile (%)	Zircon (%)
Gingin Nth <sup>3</sup>	Indicated	680,175	1,318,642	5.7	15.7	75,163	75.4	57.4	9.3	3.2	5.5
Gingin Nth <sup>3</sup>	Inferred	580,000	1,090,000	5.2	14.0	57,116	78.4	57.3	11.3	3.7	6.0
<b>Gingin Nth Total</b>		<b>1,260,175</b>	<b>2,408,642</b>	<b>5.5</b>	<b>15.0</b>	<b>132,279</b>	<b>76.7</b>	<b>57.3</b>	<b>10.2</b>	<b>3.4</b>	<b>5.7</b>
Gingin Sth <sup>3</sup>	Measured	872,830	1,526,122	4.4	7.2	67,149	79.4	50.7	15.3	5.6	7.8
Gingin Sth <sup>3</sup>	Indicated	3,241,835	5,820,480	6.5	7.1	377,167	90.6	67.6	9.8	5.1	8.1
Gingin Sth <sup>3</sup>	Inferred	398,573	732,912	6.5	8.4	47,566	91.6	67.4	7.5	5.8	10.9
<b>Gingin Sth Total</b>		<b>4,513,238</b>	<b>8,079,514</b>	<b>6.1</b>	<b>7.3</b>	<b>491,882</b>	<b>89.2</b>	<b>65.3</b>	<b>10.3</b>	<b>5.2</b>	<b>8.3</b>
Helene <sup>3</sup>	Indicated	5,568,110	11,466,106	4.6	18.6	522,854	88.7	74.6	0.0	3.6	10.5
Hyperion <sup>3</sup>	Indicated	1,786,781	3,742,471	7.7	19.3	286,673	69.4	55.8	0.0	6.3	7.3
<b>Cooljarloo Nth Total</b>		<b>7,354,891</b>	<b>15,208,577</b>	<b>5.3</b>	<b>18.8</b>	<b>809,528</b>	<b>81.9</b>	<b>67.9</b>	<b>0.0</b>	<b>4.6</b>	<b>9.4</b>
Red Gully <sup>3</sup>	Indicated	1,930,000	3,409,768	7.8	11.5	265,962	89.7	66.0	8.3	3.1	12.4
Red Gully <sup>3</sup>	Inferred	1,455,000	2,565,631	7.5	10.7	192,422	89.0	65.4	8.2	3.0	12.3
<b>Red Gully Total</b>		<b>3,385,000</b>	<b>5,975,399</b>	<b>7.7</b>	<b>11.2</b>	<b>458,384</b>	<b>89.4</b>	<b>65.7</b>	<b>8.2</b>	<b>3.1</b>	<b>12.4</b>
<b>Sub-Total Other</b>		<b>16,513,304</b>	<b>31,672,132</b>	<b>6.0</b>	<b>14.1</b>	<b>1,892,073</b>	<b>85.2</b>	<b>66.0</b>	<b>5.4</b>	<b>4.3</b>	<b>9.6</b>
Historic Deposit - Strand deposit (Under EL application)											
Project/Deposit	Category	Volume	Tonnes	% HM	% Slimes	HM Tonnes	VHM (%)	Ilmenite (%)	Leucoxene (%)	Rutile (%)	Zircon (%)
Regans Ford <sup>4</sup>	Indicated	4,505,285	9,024,226	9.9	16.8	893,398	94.3	70.0	10.0	4.3	10.0
Regans Ford <sup>4</sup>	Inferred	455,933	918,536	6.5	18.5	59,705	90.5	68.3	7.7	4.4	10.1
<b>Regans Ford Total</b>		<b>4,961,218</b>	<b>9,942,762</b>	<b>9.6</b>	<b>17.0</b>	<b>953,103</b>	<b>94.1</b>	<b>69.9</b>	<b>9.9</b>	<b>4.3</b>	<b>10.0</b>

# Mineral Resources – Dredge Deposits

## Dredge Deposits 1 of 1

Previously Reported Mineral Resources - Dredge deposits; in accordance with JORC Code (2004) @ 1.0% HM Cut-off											
Project/Deposit	Category	Volume	Tonnes	% HM	% Slimes	HM Tonnes	VHM (%)	Ilmenite (%)	Leucoxene (%)	Rutile (%)	Zircon (%)
Titan <sup>3</sup>	Indicated	10,335,053	21,163,741	1.8	22.1	378,831	86.0	71.9	1.5	3.1	9.5
Titan <sup>3</sup>	Inferred	58,517,775	115,445,391	1.9	18.9	2,205,007	85.9	71.8	1.5	3.1	9.5
<b>Total Titan</b>	<b>Total</b>	<b>68,852,828</b>	<b>136,609,132</b>	<b>1.9</b>	<b>19.4</b>	<b>2,583,838</b>	<b>85.9</b>	<b>71.8</b>	<b>1.5</b>	<b>3.1</b>	<b>9.5</b>
Telesto <sup>3</sup>	Indicated	1,716,328	3,512,204	3.8	18.4	134,499	83.3	67.5	0.7	5.6	9.5
Calypso <sup>3</sup>	Inferred	27,113,647	51,457,008	1.7	13.7	854,186	85.6	68.1	1.6	5.1	10.8
Bidaminna <sup>3</sup>	Inferred	26,260,000	44,642,000	3.0	3.6	1,339,260	96.8	83.11	7.2	1.0	5.5
<b>Total Dredge</b>		<b>123,942,803</b>	<b>236,220,344</b>	<b>2.1</b>	<b>15.2</b>	<b>4,911,783</b>	<b>88.7</b>	<b>74.1</b>	<b>3.1</b>	<b>2.9</b>	<b>8.6</b>

## COMPLIANCE STATEMENT FOR MINERAL RESOURCES

### 1. COMPLIANCE STATEMENT Boonanarring/Atlas Mineral Resources

The information in this presentation that relates to the estimation of Mineral Resources is based on information compiled by Mrs Christine Standing, who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and the Australian Institute of Geoscientists (AIG). Mrs Standing is a full-time employee of Optiro Pty Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mrs Standing consents to the inclusion in this report of the matters based on her information in the form and context in which it appears.

### 3. COMPETENT PERSON'S STATEMENT – MINERAL RESOURCE ESTIMATES

The information in this presentation that relates to Mineral Resources is based on information compiled by Lynn Widenbar BSc, MSc, DIC MAusIMM MAIG employed by Widenbar & Associates who is a consultant to the Company. Lynn Widenbar has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 edition of the 'Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Lynn Widenbar consents to the inclusion of this information in the form and context in which it appears.

### 4. HISTORIC INFORMATION – REGANS FORD DEPOSIT

The information in this presentation that relates to tonnes, grades and mineral assemblage is based on historic information published by Iluka Resources Limited and indicating the mineral resources were compiled in accordance with the JORC Code (2004).