

# Australia's newest mineral sands miner

#### **Boonanarring Mineral Sands Project**

100%-owned; high-grade; zircon-rich 80km north of Perth in Western Australia Built on-time & on-budget; Production Exceeding Expectations 2019 Guidance Upgraded



Diggers & Dealers Mining Forum Kalgoorlie, WA 5-7 August 2019

John McEvoy Chief Financial Officer Image Resources NL ASX: IMA

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Information regarding the calculation of ore reserves and mineral resources in this presentation (if any), and the consents provided by the respective Competent Persons is presented within this presentation. For additional information and details on the content of this presentation, please refer to the ASX releases on the Company's website.

# **Investor Snapshot**

**IMAGE** R E S O U R C E S

Company successfully transitioned to profitable, cashflow positive miner in Q2 2019

- Project construction and commissioning completed 'on-schedule' and 'on-budget'
- Production commenced 1 Dec 2018
- Ramp-up to full production in 2<sup>nd</sup> month of operations
- Completed first two quarter of operations (30 June 2019):
  - HMC Production: 138% of budget
  - Ore Grade: 143% of budget
  - Revenue: \$579/T
  - Project Opex: \$325/T
  - Operating Margin: \$254/T
  - YTD Project EBITDA: \$29.5M (Q2: \$20M)



#### **Investor Snapshot**



Company transitioning to profitable zircon miner at a time of zircon supply shortfall

- > 30 June 2019 (Six Month) Summary:
  - Ore Grade 143% of Budget
  - Zircon grade YTD 112% of budget
  - Zircon 85%+ of revenue
  - Revenue \$67.3M YTD

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Rough zircon grains

- Project EBITDA \$29.5M (2019 Guidance +\$15M to A\$55-65M)
- > Share price \$0.235<sup>1</sup> (increased to \$0.30<sup>2</sup> post Q2 Results).
- Market capitalisation \$228M<sup>1</sup>

Notes: 1 - as at 30 June 2019 2 - as at 23 July 2019

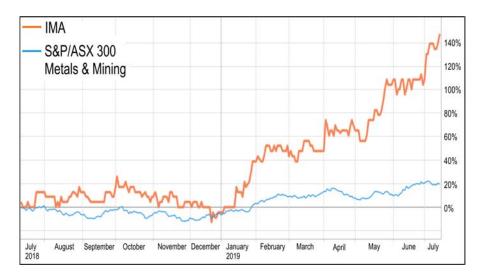
## **Image Corporate Snapshot**



#### **Diverse and experienced Board and Management**

#### As at 30 June 2019 (unless stated):

ASX Code:	IMA
Share Price <sup>1</sup> :	A\$0.30
12-Month Price Range <sup>1</sup> :	A\$0.10-0.30
Shares on Issue:	972m
Market Cap: (\$0.235/share)	A\$228m
Cash on hand <sup>2</sup> :	A\$26m
Debt:	A\$67m
Enterprise Value:	A\$269m
Top 20 Shareholders:	69%



#### **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 Huang Cheng Li – Non-Executive Director

#### Key Management

Patrick Mutz – CEO John McEvoy – Chief Financial Officer Todd Colton – Chief Operating Officer George Sakalidis – Exploration Director

#### Notes:

1. As at 23 July 2019

2. Cash excludes \$12m received in July (30 June HMC shipment #6)

#### **Products and Applications**



whitener

opacifier

heat resistant

abrasion resistant

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IMA produces HMC containing zircon and titanium dioxide

> Zircon sand is processed into zirconium compounds, intermediate products and zirconium metal for a variety of applications; Qualities



- Ceramics (tiles); 55% demand
- Foundry Sands (castings); 14%
- Refractories (furnace linings); 10%
- Chemicals (gem stones, nuclear reactors); 14%
  - Others; 7%



metal bio-compatible

Speciality uses include fibre optics, glass, paints, catalysts, underarm deodorants, adhesives, cosmetics, paper, dental ceramics plus many research applications.

Source: Zirconium Industry Association www.zircon-association.org

## **Products and Applications**



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#### IMA produces HMC containing zircon and titanium dioxide

- Titanium dioxide (TiO2) from rutile and ilmenite is processed into titanium based products and titanium metal for a variety of applications;
  - Ultra-white pigments (paint, paper, plastic); ~90% demand
  - Welding rods (flux coating);



 Titanium metal (light, strong, corrosion-resistant, biocompatible);



Used in aircraft, spacecraft, motor vehicles and medical implants;



Speciality uses include sunscreen, adhesives, inks, fabrics, ceramics, cosmetics, toothpaste, catalysts, and pharmaceuticals.

# **Project 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.





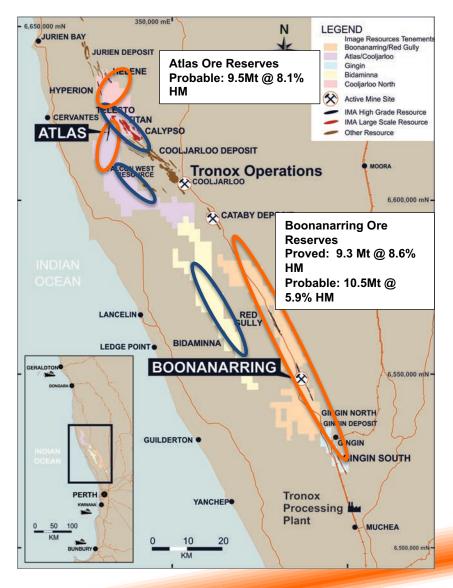
#### **Project Types and Locations**



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

Multiple opportunities for a second stand-alone mining project within the current 100%-owned tenement package.

Bidaminna is high on priority list.



#### **Ore Reserves**



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# QUALITY ORE RESERVES

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

High Grade Ore Reserves - Strand Deposits; in accordance with the JORC Code (2012)											
Project/Deposit	Category	Volume	Tonnes	% HM	% Slimes	<b>HM</b> Tonnes	VHM	Ilmenite	Leucoxene	Rutile	Zircon
							(%)	(%)	(%)	(%)	(%)
Boonanarring <sup>1</sup>	Proved	5,008,000	9,344,000	8.6	14.3	803,771	76.081	48.9	1.8	2.2	23.2
Boonanarring <sup>1</sup>	Probable	5,565,000	10,514,000	5.9	17.6	622,429	78.653	52.3	1.8	2.7	21.9
<b>Total Boonanarring</b>		10,573,000	19,858,000	7.2	16.1	1,426,200	77.203	50.4	1.8	2.4	22.7
Atlas <sup>1</sup>	Probable	5,000,000	9,477,000	8.1	15.5	767,637	73.2	50.7	4.5	7.5	10.6
Total Atlas		5,000,000	9,477,000	8.1	15.5	767,637	73.3	50.7	4.5	7.5	10.6
		45 572 000	20.225.000	7 5	15.0	2 402 027	75.0	<b>FO F</b>	2.7	4.2	
Total Ore Reserves		15,573,000	29,335,000	7.5	15.9	2,193,837	75.8	50.5	2.7	4.2	18.4

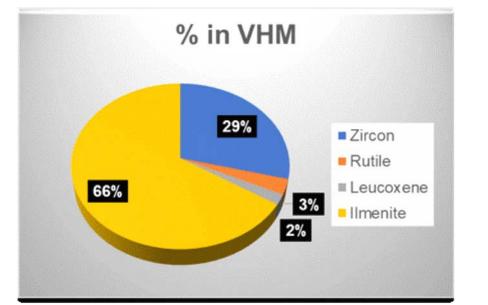
1. COMPLIANCE STATEMENT - Boonanarring/Atlas Ore Reserves

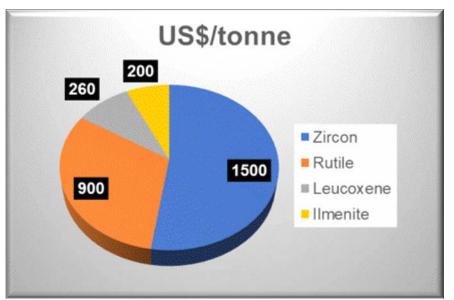
The Ore Reserves statement has been compiled in accordance with the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code – 2012 Edition). The Ore Reserves have been compiled by Jarrod Pye, Mining Engineer and full-time employee of 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.

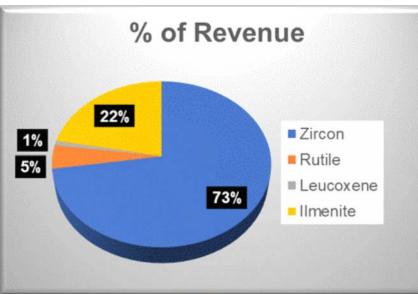
#### **Example Products and Prices**



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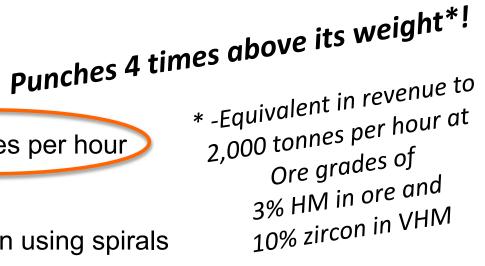
Notes: VHM assemblages and commodity prices are estimates based on Boonanarring project heavy mineral concentrate product.

Increase in premium Zircon Prices and Grades has increased Zircon Revenue to over 85% of total.

#### **Target Production Rate**

# **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. 240K tonnes/annum
  - No further processing or separation required
  - Truck to Bunbury for bulk shipments to China





## **Boonanarring – Production Statistics**

# Average annual production at Boonanarring: 5 Year Base Case

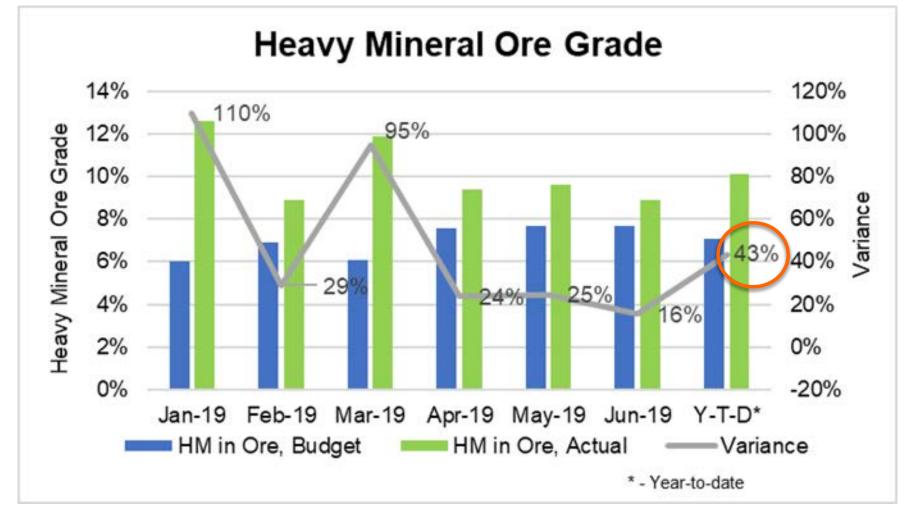
- > 240k tonnes HMC p.a. containing:
  - 60kt zircon (70kt/year in 2019-20)
  - 130kt ilmenite
  - 6kt rutile
  - 4kt leucoxene
- 5+ years mine life with potential to add 3-4 years additional reserves (north, south and new strand to west of WCP)





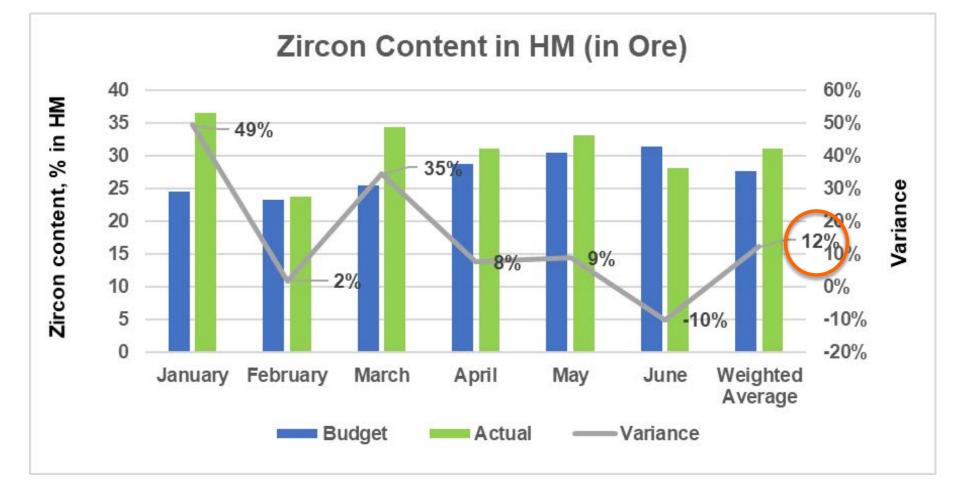
#### **Boonanarring – HM Ore Grade**



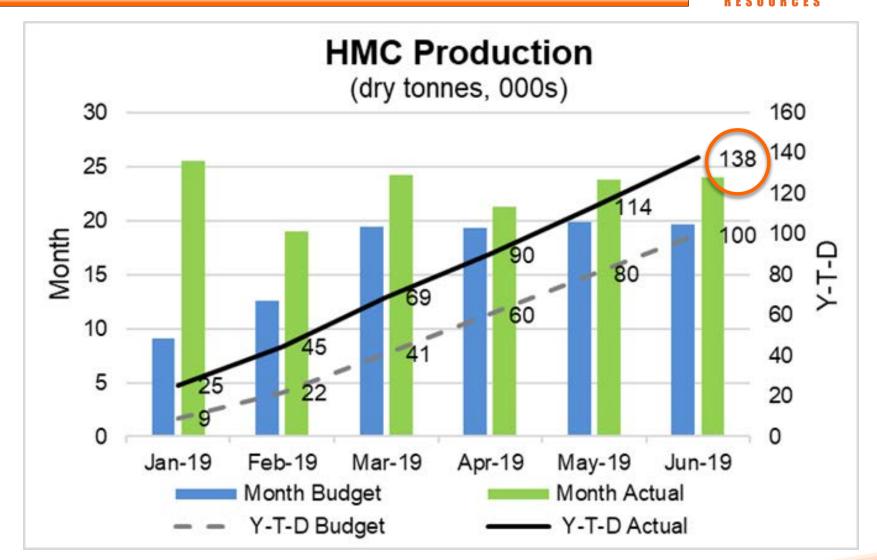


#### **Boonanarring – Zircon Grade in Ore HM**





#### **Boonanarring – HMC Production**



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#### **Recent Announcements**



- > 13 May 2019: 'Image Mines Ultra-High-Grade Ore'
  - Identification of zone of direct shipping ore (DSO) at up to 95%HM and 70% zircon in the HM
  - DSO zone 4-6m wide by 1-3m thick and ending approximately 60m along strike and beyond into next mining section; 500 tonnes DSO mined
- > 27 May 2019: 'Image Secures Sales Agreements for all Current HMC Inventory'
  - Sales commitments for 70K tonnes of HMC valued at >A\$35M. Total of approx. 3,000 tonnes DSO mined
- 2 July 2019: 'Image Completes Sales of 70,000 Tonnes HMC Inventory in June Quarter'
- > 15 July 2019: 'Confirms High Grade Core in Eastern Strand at Boonanarring'
- 17 July: 'Secures Drilling Access to High Grade Nth Extension at Boonanarring'
- > 23/24 July: Quarterly Results & Guidance Upgrade

#### **Boonanarring – 2019 Guidance**



2019 Guidance & 2020 Forecast <sup>1,2,4</sup>	Units	YTD Actual	2019 Guidance	2020 Forecast
HMC <sup>3</sup> Produced	DMT 000s	138	240-260	280-300
HMC <sup>3</sup> Sold	DMT 000s	116	230-250	280-300
Revenue	A\$M	67	130-145	180-200
Revenue/DMT Sold	A\$/DMT HMC	579	568-592	600-650
Project Operating Costs	A\$M	38	75-85	85-95
Project Opex./DMT Sold	A\$/DMT HMC	325	320-350	310-330
Project EBITDA	A\$M	29.5	55-65	90-100

Notes:

1. To be read in conjunction with slide 2 - Disclaimer and Forward-Looking Statements.

2. Further details regarding YTD actuals can be found in the 30 June 2019 Quarterly Report announced 23 July 2019.

3. Heavy Mineral Concentrate product.

4. Non-IFRS Financial Information:

This document contains non-IFRS unaudited financial measures including Project operating costs and Project EBITDA. Image management considers these to be key financial performance indicators used to measure underlying operational performance. Project operating costs include costs incurred in producing HMC at the Boonanarring Project plus logistics costs but exclude corporate and exploration costs, depreciation/amortisation, financing costs and income tax. Project EBITDA is calculated as revenue from sale of HMC less Project Operating Costs.



#### Upside potential at and near Boonanarring

- Confirmed potential to extend mine life with high grade mineralisation (ASX announcement 13 March & 26 June 2017);
  - Assuming mineralisation in extension area is identical to known Ore Reserves in all aspects and economics; two years of additional mine life could add AU\$60M to project NPV.
  - Access to land to the north of Boonanarring announced 17 July 2019 with drilling planned for 2<sup>nd</sup> half 2019.
  - Potential to add additional mine life west and south of current reserves
- Potential to process ores from several other deposits with high grade mineral resources in the vicinity;
  - Red Gully, Regans Ford, and Gingin (South and North).

## **Boonanarring High-Grade Extension**



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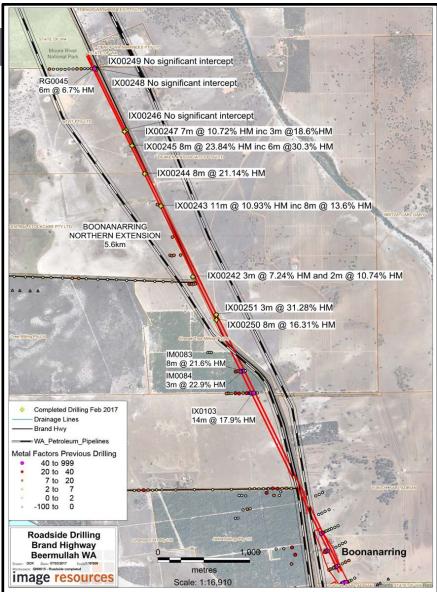
#### ASX - 13 March & 26 June 2017

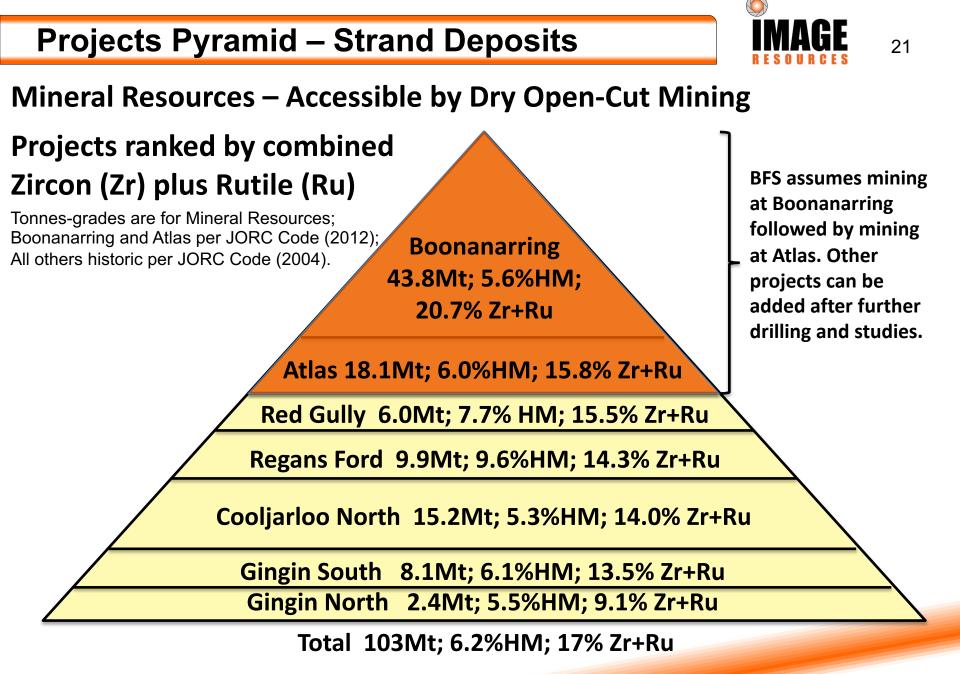
#### **Drilling Results (Feb 2017)**

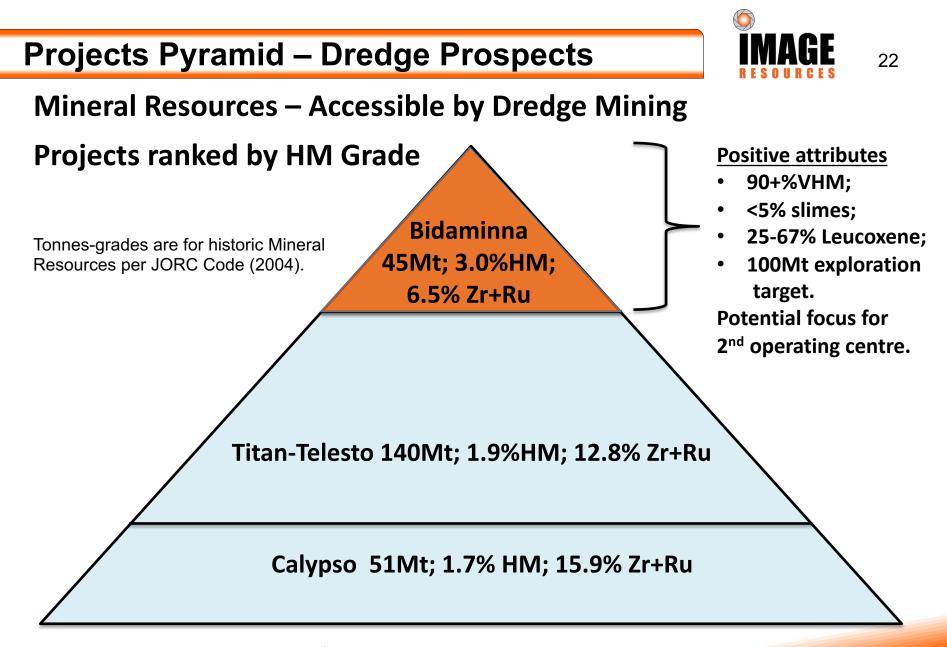
 Confirm 5.6km northern extension of Boonanarring mineralisation

#### > Outstanding high grade intersections:

- 8m @ 23.8% HM in IX00245
- 8m @ 21.1% HM in IX00244 and
- 8m @ 16.3% HM in IX00250
  Importantly with high grade zircon:
- 21.5% Zr in HM in IX00245 & 247
- 22.1% Zr in HM in IX00243 & 244
- 16.4% Zr in HM in IX00242, 250, 251
- Additional drilling on part of northern extension planned for 2<sup>nd</sup> half 2019 access secured July 2019.







Total 236Mt; 2.1%HM; 11.5% Zr+Ru

# **Potential Royalty from Tronox**



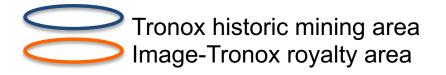
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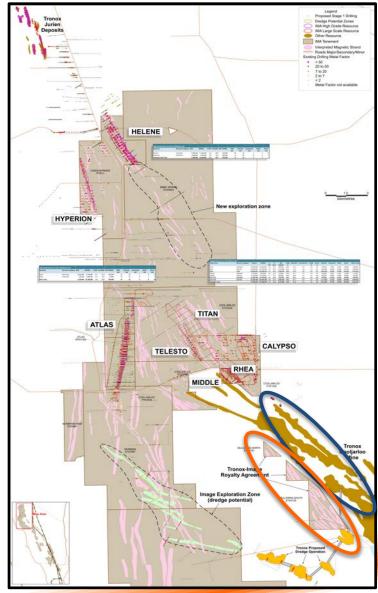
#### **Royalty agreement in place as of 2014**

- Small cash payment (already received)
- Sliding-scale royalty on production

<u>Royalty</u>
1.25%
2.50%
3.75%
5.00%

- Indefinite production schedule
- 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.





#### **Use of Solar Energy**

**IMAGE** R E S O U R C E S

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Heads of Agreement with **Sunrise Energy Group Pty Ltd** to provide 2 to 2.5 MW<sub>AC</sub> solar farm to be:

- Constructed and operated by Sunrise Energy;
- Located on Image owned land adjacent to Boonanarring mine site; and
- Providing 25% of total electricity requirements for mine and processing operations.



Additional information regarding Heads of Agreement announced to ASX on 23 April 2018.

#### For further information



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