



# Counting down to Cashflow

**Resources Rising Stars Conference  
24 - 25 September 2015**

Trevor Matthews – Managing Director



# MZI Corporate Overview



| ASX                                | MZI            |
|------------------------------------|----------------|
| Issued Capital                     | 79m FPO Shares |
| Current Price                      | \$0.37         |
| Market Capitalisation <sup>1</sup> | \$29.2m        |
| Enterprise Value <sup>2</sup>      | \$123.6m       |

## Board & Executive Management

|                 |                                   |
|-----------------|-----------------------------------|
| Mal Randall     | Chairman                          |
| Trevor Matthews | Managing Director                 |
| Rod Baxter      | Non-Executive Director            |
| Nathan Wong     | Non-Executive Director            |
| Stephen Ward    | Non-Executive Director            |
| Maree Arnason   | Non-Executive Director            |
| Mike Ferraro    | Chief Operating Officer           |
| Peter Gazzard   | Technical Director                |
| John Traicos    | Legal Manager / Company Secretary |
| John Westdorp   | Chief Financial Officer           |
| Jamie Wright    | Chief Development Officer         |

## Major Shareholders

|                      |       |
|----------------------|-------|
| RCF                  | 25.9% |
| Technical Investing  | 5.2%  |
| Board and Management | 5.0%  |
| Slade Technologies   | 4.7%  |
| Xiang Lin            | 4.4%  |
| Tricoastal           | 3.6%  |

## Funding Structure

|  |           |
|--|-----------|
| <b>RCF</b>                               |           |
| Convertible Loan (fully drawn)           | US\$21.0m |
| Bridge Facilities (US\$25.5m drawn)      | US\$33.5m |
| <b>RMB</b>                               |           |
| Project Facility (fully drawn)           | US\$37.5m |
| Working Capital                          | US\$3.0m  |
| Bank Guarantee Facility                  | A\$11.5m  |
| FX Hedge and Interest Rate Swap Facility |           |

<sup>1</sup>As at 15 September 2015

<sup>2</sup>As at 30 June 2015

# What makes MZI and Keysbrook compelling?

- MZI is a mineral sands company focused on the development of the Keysbrook project located 70km from Perth
- Keysbrook will be a high margin long life project with growth potential
- Construction nearing completion, on time & budget
- Proven record of developing and operating a high grade Zircon/Rutile project in the Tiwi Islands

## Project Economics

Potential+30 year life, subject to land access and further approvals.  
High margin per tonne of product

## Low Risk

Australian based project  
MZI has 100% ownership  
Soft environmental footprint

## Product Mix

38 ktpa 88% TiO<sub>2</sub>  
29 ktpa 70% TiO<sub>2</sub>  
29 ktpa Zircon Concentrate  
(56% ZrO<sub>2</sub> + 11% Rutile Grade TiO<sub>2</sub>)

## Funding & Costs

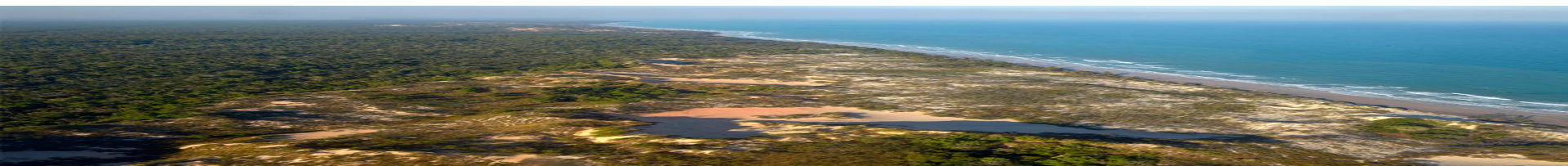
Development fully funded  
Low LOM Operating costs ~ A\$380/t

## Strong Board and Management

Over 100 years of mineral sands experience within the company

## Sales

TiO<sub>2</sub> products L88 and L70 sales agreements with Chemours  
Zircon concentrate sales agreement with Tricoastal/Wensheng



# The Keysbrook location advantage

- Mine located 70km south of Perth
- Near large population, mining and industrial centres
- No need for employee transport, accommodation or catering
- Connected to grid power, high standard road transport, product storage and port facilities
- Basic wet processing at mine site
- Dry processing de-risked via toll treatment agreement to utilise Doral plant at Picton



- 155Mt Global Mineral Resource\* including Ore Reserves of 26Mt
- Low slimes
- High value product mix of leucoxene (L88 and L70) and zircon concentrate
  - 38 ktpa 88% TiO<sub>2</sub>
  - 29 ktpa 70% TiO<sub>2</sub>
  - 29 ktpa zircon concentrate (56% ZrO<sub>2</sub> and 11% rutile grade TiO<sub>2</sub>)
- Offtake agreements for 85% of production under five year sale agreements with Chemours and Tricoastal-Wensheng
- JORC Mineral Resources increased 68% in August 2015
- Current Resource life +30\* years with exploration upside
- Testwork confirmed potential to increase HM recoveries

\*Refer ASX release 7 August 2015, and slides 22-24



# Keysbrook Financials

## Annual EBITDA

- Spot price \$39.9m<sup>1</sup>
- Base case \$42.8m<sup>2</sup>

## Operating Costs

- Unit Cash Cost \$355 per product tonne<sup>4</sup>

## NPV

- \$209m

## Capital Expenditure + Pre-operations Cost

- \$75.8m

## Annual Average Sustaining Capital

- \$1.1m

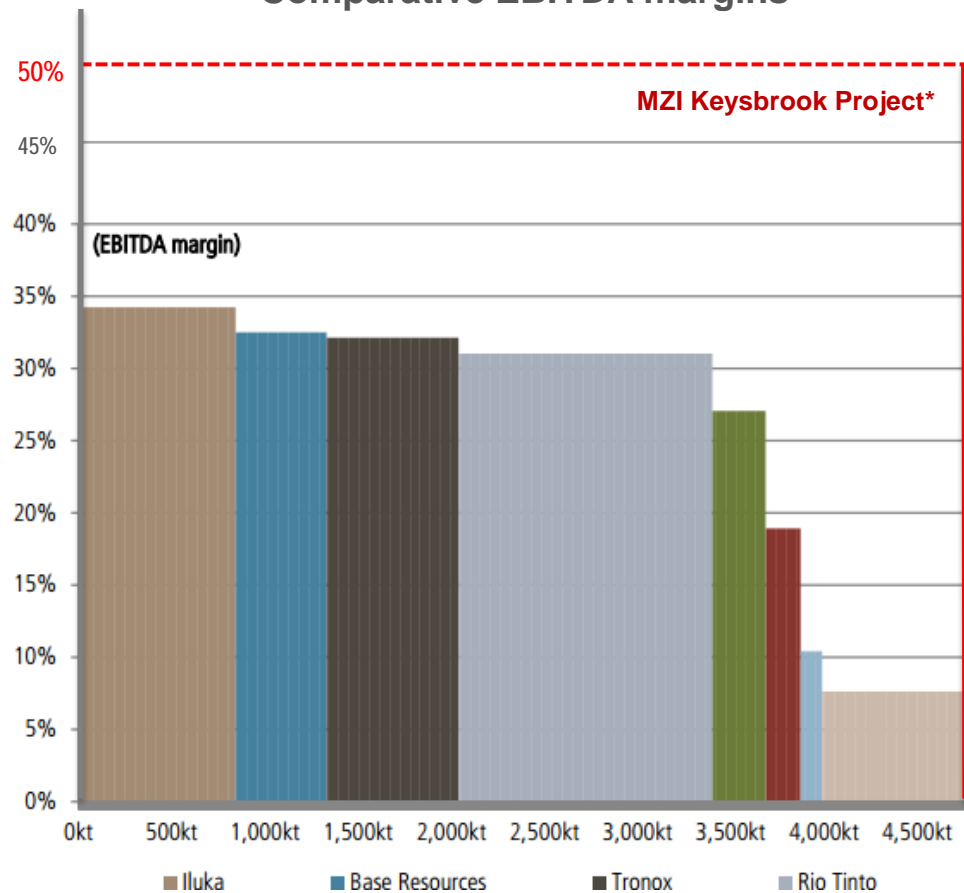
### Notes:

1. Based on spot price for rutile and zircon and US:AUD exchange rate for the week ending 28 August 2015 (USD:AUD 0.7168).
2. Revenue assumptions have been based on indexing to the Q2 2015 TZMI pricing outlook for comparable pricing benchmarks to Keysbrook's product suite (note the TZMI Base and High cases converge to the same long term pricing). FX based on Bloomberg forward curve..
3. EBITDA and unit cash costs for first full financial year of production.
4. Keysbrook expenditure only and includes all administration costs, royalties, landowner payments.
5. All values in AUD.
6. Capital cost includes power connection, contingency and growth.
7. Current as at 28 August 2015.

# Globally competitive

Low operating costs and quality product mix make Keysbrook globally competitive

### Comparative EBITDA margins



Source: UBS industry estimates (H2 2014 margins and 2014 production), as published 18 August 2015.

\*Projected Keysbrook margin depicted as estimated by MZI in first full year of production. Refer slide 6.

# Improved HM recovery offers material upside



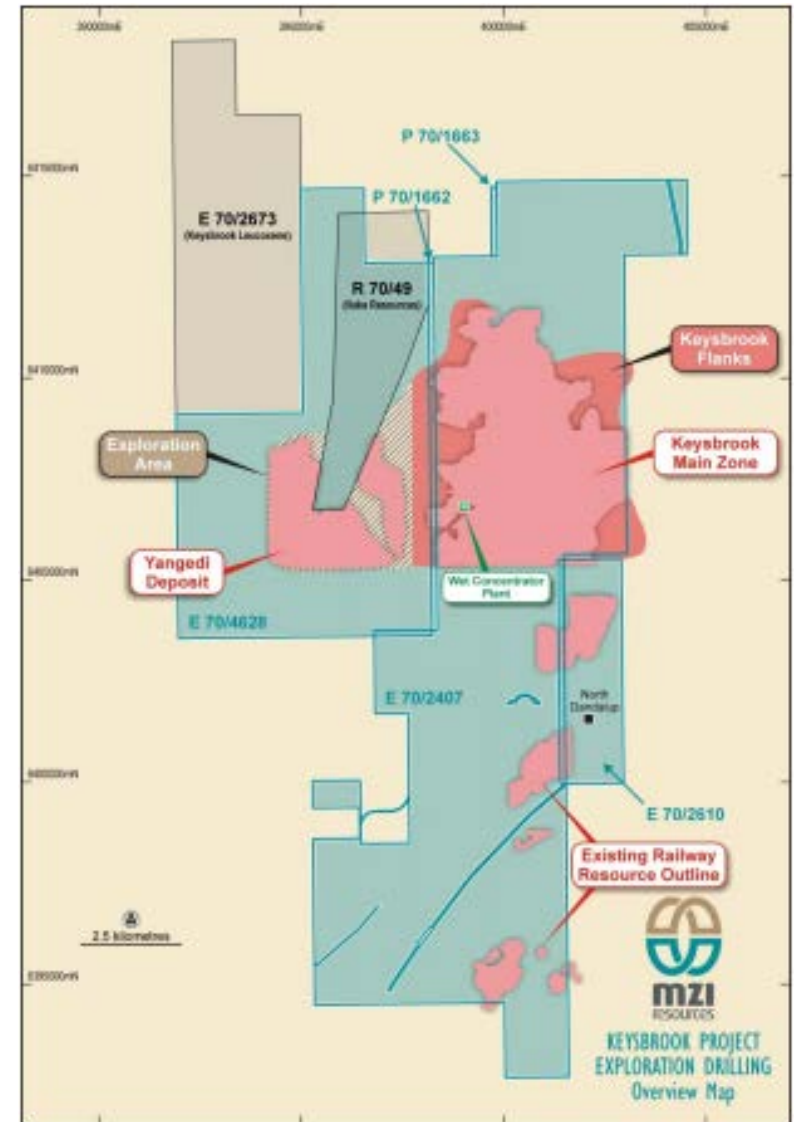
- Strong cash margins expected from current WCP recovery of 85%
- Initial testwork has confirmed potential to increase HM recovery:
  - Overall HM recovery to **+90%\***
  - L88 recovery to **~83%** from 71%, and potentially 90%
- Follow-up testwork underway to define optimum flowsheet modifications
- Likely to require additional gravity and separation stages
- Modifications expected to be modest capital cost and able to be retro-fitted with minimal interruption to operations
- Higher recoveries could materially enhance Keysbrook's already strong forecast margins – improved recovery flows almost directly to the bottom line

\*Refer ASX Release 2 September 2015



# Expanding resources a platform for future growth

- Keysbrook Global Mineral Resource increased by **68%** to **155Mt @ 2.0% HM** in August 2015\*
- Total contained HM increased to **3.1Mt** in the Keysbrook, Yangedi and Railway deposits
- Keysbrook Deposit increased **14%** to **90Mt @ 2.2% HM** containing **2.0Mt HM**
- Maiden Mineral Resource estimate for Yangedi Deposit of **51Mt @ 1.5% HM** containing **0.79Mt HM**
- Mineralisation remains open to the west, north and south
- Mineral Resources equivalent to +30\* years of life at currently planned production rates
- Increased resource base positive for ongoing capacity expansion studies
- Current Ore Reserves of 26Mt @ 2.6% HM to be updated in late 2015



\*Refer ASX release dated 7 August 2015, and slides 22-24

# Expansion potential

- Improved recoveries could deliver material production increase for minimal cost
- Resource base sufficient for large scale increase in production
- Significant processing capacity at Picton MSP – currently month-on/month-off tolling arrangement
- Potential to double mine output with addition of second MFU and concentrator expansion at Keysbrook
- Expansion studies underway, including assessment of MSP capacity options

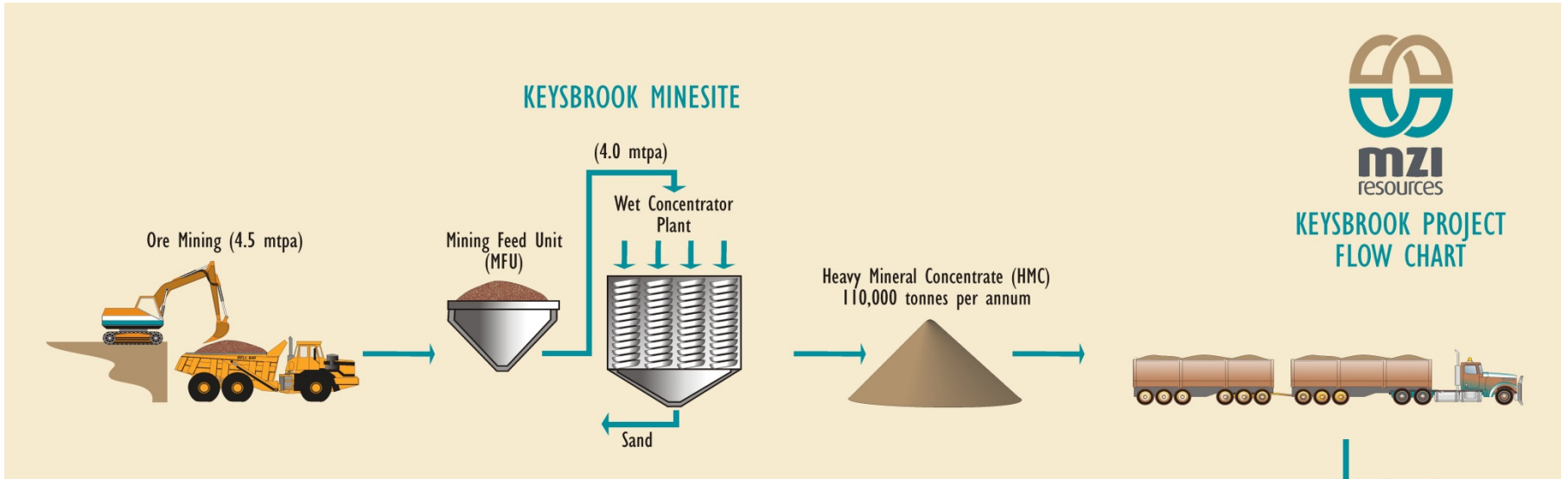


**Wet concentrator plant construction**

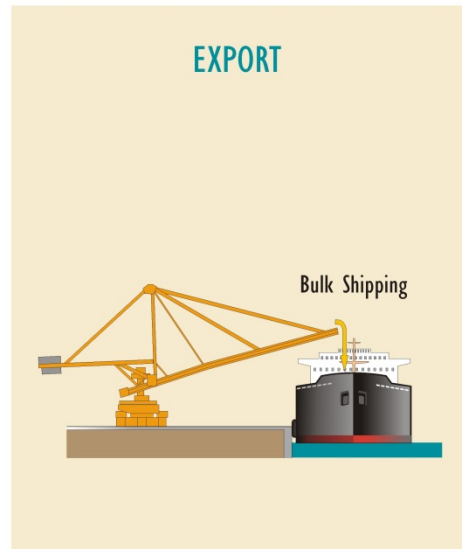
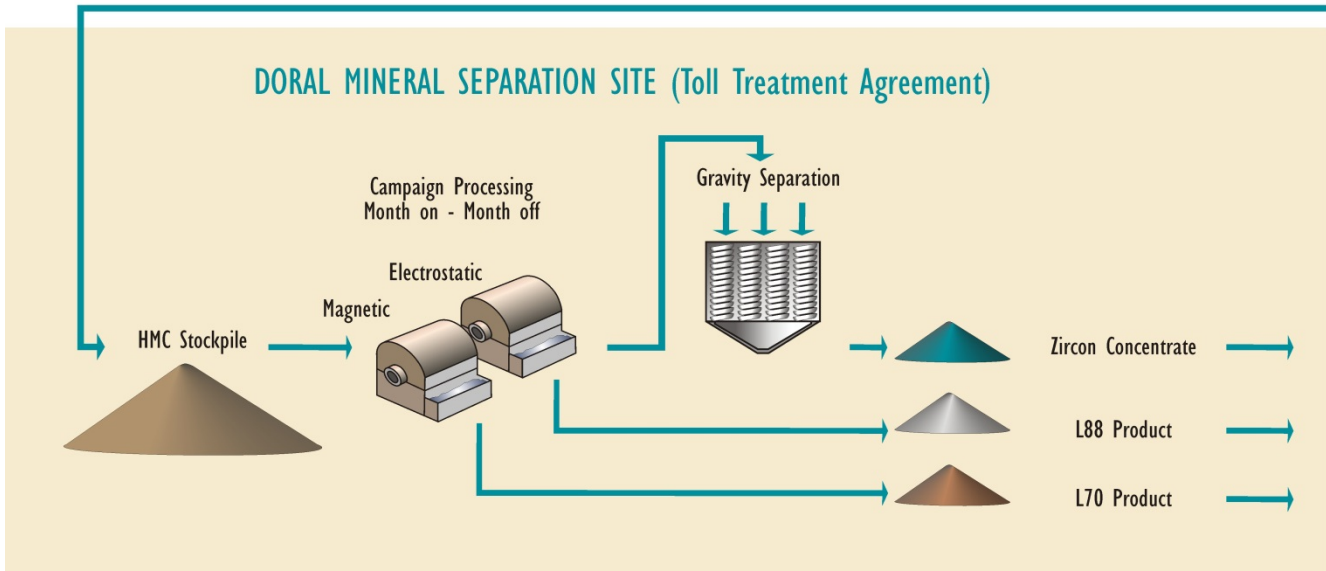


**Steel erection at Picton MSP**

# Keysbrook – A Simple Flowchart



## KEYSBROOK PROJECT FLOW CHART





# Construction Almost Complete

✓ *Keysbrook construction 87.7% complete at end August*





# Minimising impacts

- Only small areas (30ha) opened for mining at any one time, average mining depth 2.2m
- No comminution of mined sand and chemical free processing
- Recycle >85% of annual water requirements
- No residual waste from processing
- After processing, sand and clay material is returned to the mined area
- Stockpiled topsoil is replaced and mine rehabilitation is complete within 2 to 3 growing seasons and returned to previous land use
- Disturbed areas revegetated to better than pre-mining state
- Comprehensive noise, dust, water and transport management plans in place



Keysbrook site is located on cleared pasture



Rehabilitation progress at MZI's Tiwi Islands project



## Zircon

- Architectural ceramics (tiles, bathroom fixtures)
- High performance refractories (kiln/furnace linings)
- Friction abrasives (brakes)
- Precision casting (auto manufacturing)
- Digital printing inks
- Zirconium metal (nuclear fuel rods)



## TiO<sub>2</sub>

- Leucoxene (L88 and L70) is a high value source of TiO<sub>2</sub>
- Everyday pigments (paints, plastics, paper etc)
- Industrial uses (welding rods)
- Titanium metal applications (aerospace, industrial, medical – even golf!)



# Market Outlook

- ✓ Stable mineral sands market
- ✓ Modest long term price growth forecast
- ✓ Broad demand for products used in everyday life

## Zircon

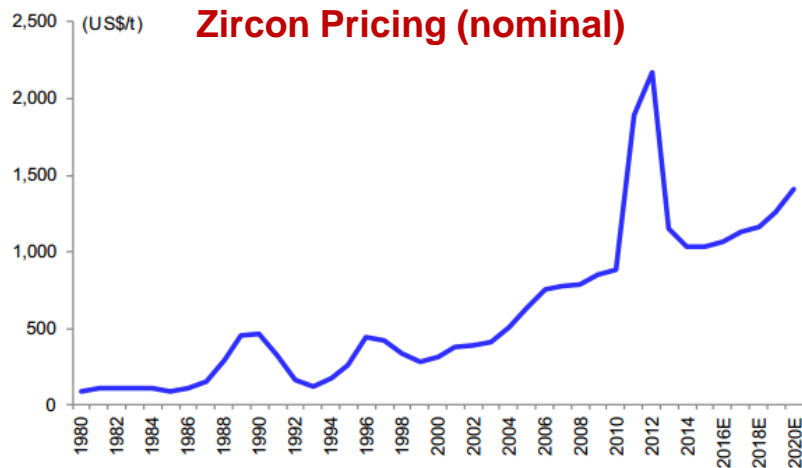
- The zircon price has eased slightly over the past year with premium grades currently selling for ~US\$1,000 pmt.
- Supply/demand has remained largely in balance with major producers (Iluka, Rio and Tronox) managing supply.
- Global consumption is currently assumed to be ~1.0 million tonnes per year, with demand growing in step with global GDP.

## Titanium Dioxide

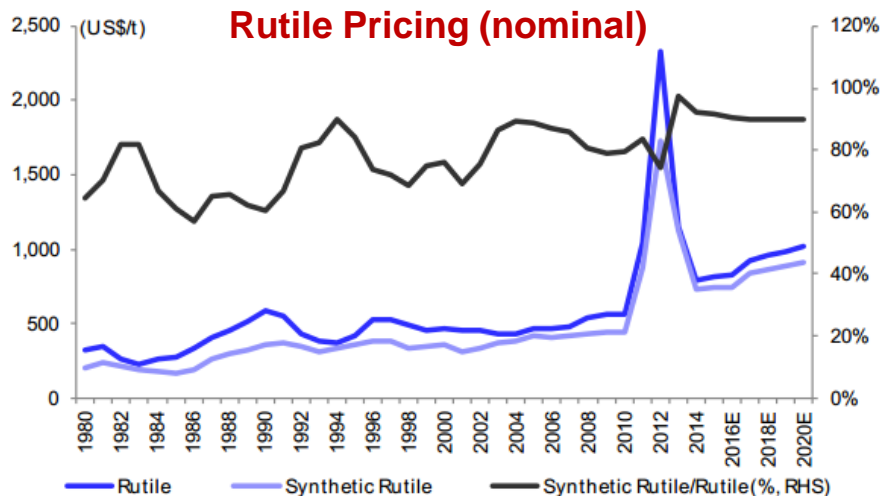
- Demand for chloride  $TiO_2$  feedstock is stable with conditions expected to improve through 2016.
- Modest price growth anticipated post 2016.



# Market Outlook – Prices



Source: Deutsche Bank, TZMI, report published 30 June 2015



Source: Deutsche Bank, TZMI, report published 30 June 2015

- Prices have entered a post-correction phase, and are expected to return to the long term trend
- Moderate price improvement is anticipated over the remainder of the decade
- Leucoxene prices are linked to rutile based on TiO<sub>2</sub> content – L88 typically receives 80-85% of rutile price

# Summary: MZI a rare gem in today's resources sector



- ✓ Keysbrook project is fully funded, fully permitted and under construction – **87.7% complete at end August**, tracking on budget and on schedule
- ✓ Commissioning and production in Q4 2015, first sales Q1 2016
- ✓ Low cost: **~\$355/tonne** forecast cash operating cost in first full year, competitive with major producers\*
- ✓ High margin: ~50% forecast EBITDA margin even at recent spot prices and FX\*
- ✓ First full year forecast EBITDA of **\$39.9m** at recent spot prices and FX\*
- ✓ Positive price/demand outlook for Keysbrook-type products
- ✓ Focused on higher-value end of mineral sands market:  
**Zircon, Leucoxene88, Leucoxene70**
- ✓ Five year binding sales contracts for 85% of annual production with blue chip customers (Chemours and Tricoastal/Wensheng)
- ✓ Long life asset with significant growth/expansion potential

\*refer to slide 6

# Important Notice



## Disclaimer

This presentation has been prepared by the management of MZI Resources Ltd (the 'Company') for the benefit of investors and not as specific advice of any particular party or person. The information is based on publicly available information, internally developed data and is based on the assumptions and limitations mentioned herein and is an expression of present opinion only. No warranties or representations can be made as to the origin, validity, accuracy, completeness, currency or reliability of the information. The Company disclaims and excludes all liability (to the extent permitted by the law), for losses, claims, damages, demands, costs and expenses of whatever nature arising in any way out of or in connection with the information, its accuracy, completeness or by reason of reliance by any person on any of it. Where the Company expresses or implies an expectation or belief as to the success of future exploration and the economic viability of future projects, such as expectation or belief is based on management's current predictions, assumptions and projections. However, such forecasts are subject to risks, uncertainties or other factors which could cause actual results to differ materially from future results expressed, projected or implied by such forecasts. Such risks include, but are not limited to, exploration success, gold and copper price volatility, changes to the current mineral resource estimates, changes to assumptions for capital and operating costs as well as political and operational risks and government regulation outcomes. For more detail of risks and other factors, refer to the Company's other Australian Securities Exchange announcements and filings. The Company does not have any obligation to advise any person if it becomes aware of any inaccuracy in, or omission from, any forecast or to update such forecast.

## Forward-Looking Statements

This presentation contains forward looking statements concerning the projects owned by MZI Resources Ltd. Statements concerning mining reserves and resources may also be deemed to be forward looking statements in that they involve estimates based on specific assumptions. Forward-Looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward looking statements as a result of a variety of risks, uncertainties and other factors. Forward Looking statements are based on Management's beliefs, opinions and estimates as of the dates the forward looking statements are made and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

Data and amounts shown in this presentation relating to capital costs, operating costs and project timelines are internally generated best estimates only. All such information and data is currently under review as part of MZI Resources Ltd's ongoing development and feasibility studies. Accordingly, MZI Resources Ltd cannot guarantee the accuracy and/or completeness of the figures or data included in the presentation until the feasibility studies are completed.

## Competent Person's Statement – Exploration Results

The information in this report that relates to exploration results is based on information compiled or reviewed by Mr Stephen Harrison BSc (Hons) who is a member of the Australia Institute of Geoscientists. Stephen Harrison is a full time employee of MZI Resources Ltd. Stephen Harrison 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'. Stephen Harrison consents to the inclusion of this information in the form and context in which it appears in this report.

# Appendix



# Keysbrook Metrics

| Item                           | Result  |
|--------------------------------|---|
| Ore Mining Rate                | 4.5Mtpa   |
| Average mining depth           | 2.2 metres  |
| Strip Ratio                    | Nil   |
| Mining Inventory               | 24.5 million dry tonnes<br>(Reserve)  |
| Mine Life                      | 5.5 years (Reserve)<br>+30 years (Resource)   |
| Concentrator throughput        | 4.0Mtpa (dry)   |
| Concentrator Recovery          | L70 – 90%<br>L88 – 71%<br>Zircon – 98%  |
| HMC Produced                   | 111,000tpa (dry)  |
| MSP contract                   | Toll treating – month on /<br>month off   |
| MSP throughput                 | 111,000tpa (dry)  |
| MSP Recovery                   | L70 – 99%<br>L88 – 90%<br>Zircon – 98%  |
| <b>Final Product</b>           | <b>L70 – 28,800tpa (dry)</b><br><b>L88 – 38,400tpa (dry)</b><br><b>Zircon con – 29,000tpa (dry)</b> |
| Zircon concentrate composition | 56% Zr, 11% L88   |



Table 1: Keysbrook Project –Global Mineral Resources (above a 1% THM cut-off grade and below a 20% slimes grade)

| Category     | Tonnes (Mt)  | Total Heavy Mineral (%) | Heavy Mineral (kt) | Clay Fines (-45um)% |
|--------------|--------------|-------------------------|--------------------|---------------------|
| Measured     | 63.9         | 2.2                     | 1,400              | 8.1                 |
| Indicated    | 29.2         | 2.2                     | 655                | 10.5                |
| Inferred     | 61.9         | 1.6                     | 1,050              | 12.0                |
| <b>Total</b> | <b>155.0</b> | <b>2.0</b>              | <b>3,105</b>       | <b>10.1</b>         |

Table 2: Keysbrook Project Component Resource Statement

| Category                 | Tonnes (Mt) | Total Heavy Mineral (%) | Heavy Mineral (kt) | Clay Fines (-45um) % | L70 %       | L88 %       | Zircon %    |
|--------------------------|-------------|-------------------------|--------------------|----------------------|-------------|-------------|-------------|
| <b>Keysbrook Deposit</b> |             |                         |                    |                      |             |             |             |
| Measured                 | 63.9        | 2.2                     | 1,400              | 8.1                  | 26.1        | 50.1        | 13.6        |
| Indicated                | 15.6        | 2.2                     | 350                | 10.2                 | 28.0        | 46.1        | 14.7        |
| Inferred                 | 10.8        | 2.4                     | 260                | 11.9                 | 26.4        | 48.7        | 14.3        |
| <b>Total</b>             | <b>90.3</b> | <b>2.2</b>              | <b>2,010</b>       | <b>8.9</b>           | <b>26.5</b> | <b>49.2</b> | <b>13.9</b> |
| <b>Yangedi Deposit</b>   |             |                         |                    |                      |             |             |             |
| Inferred                 | 51.1        | 1.5                     | 790                | 12.1                 | 61.2        | 20.0        | 10.8        |
| <b>Total</b>             | <b>51.1</b> | <b>1.5</b>              | <b>790</b>         | <b>12.1</b>          | <b>61.2</b> | <b>20.0</b> | <b>10.8</b> |
| <b>Railway Deposit</b>   |             |                         |                    |                      |             |             |             |
| Indicated                | 13.6        | 2.2                     | 305                | 11.0                 | -           | -           | -           |
| <b>Total</b>             | <b>13.6</b> | <b>2.2</b>              | <b>305</b>         | <b>11.0</b>          | <b>-</b>    | <b>-</b>    | <b>-</b>    |

Notes relevant to Tables 1 and 2:

1. Reported above a cut-off grade of 1% HM and below a cut-off of 20 % clay fines.
2. Stratigraphic units reported within the Mineral Resource are Yoganup Sand and Guildford Clay for Keysbrook, Bassendean Sand for Yangedi and Yoganup Sand for Railway.
3. Keysbrook Project resource is classified and reported in accordance with the guidelines of JORC Code 2012. Railway Deposit resource is classified and reported in accordance with the guidelines of JORC Code 2004.
4. HM is reported as a percentage of the +45um to -2mm size fraction reported as a percentage of the total material.
5. L70%, L88% and Zircon% are the proportion of the total HM.
6. The terms L70 and L88 refer to MZI products. L70 comprises minerals with an average titanium dioxide content of between 65% and 85% and L88 comprises minerals with an average titanium dioxide content between 85% and 95%.
7. Inconsistencies in totals are due to rounding.

Refer Slide 24 for Competent Persons Information

## Keysbrook Project – Ore Reserve Statement as at 17 October 2012

| Classification | Ore Million tonnes | In situ THM tonnes | THM Assemblage |             |             |             |             |             |
|----------------|--------------------|--------------------|----------------|-------------|-------------|-------------|-------------|-------------|
|                |                    |                    | THM grade %    | Magnetite % | L70 %       | L88 %       | Zircon %    | Other %     |
| Proved         | 23.0               | 610,000            | 2.7            | 0.26        | 27.8        | 46.6        | 14.6        | 10.8        |
| Probable       | 2.8                | 68,000             | 2.5            | 0.26        | 27.4        | 46.5        | 15.0        | 10.8        |
| <b>Total</b>   | <b>26.0</b>        | <b>670,000</b>     | <b>2.6</b>     | <b>0.26</b> | <b>27.8</b> | <b>46.6</b> | <b>14.6</b> | <b>10.8</b> |

**Note:** L70 and L88 in the THM assemblage equates to the two Leucoxene products containing 70% TiO<sub>2</sub> and 88% TiO<sub>2</sub>

### Notes accompanying the Ore Reserve Statement:

1. Ore Reserves are based upon a cut-off grade of 1.0% THM and Mineral Resource material containing more than 20% slimes have been excluded from the Ore Reserves estimation.
2. The Ore Reserves are based upon a Leucoxene 70 price of US\$1,777 per tonne.
3. Mineral Resources have been reported as inclusive of Ore Reserves.
4. The Total Heavy Mineral (THM) assemblage is reported as a percentage of in situ THM content.
5. Tonnes and grade data have been rounded to two significant figures. Discrepancies in summations may occur due to rounding.
6. This Ore Reserve statement 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 - 2004 Edition).

# Competent Persons Information



## Competent Person's Statements – Mineral Resources (Tables 1 and 2)

The information in this report which relates to Mineral Resources is based upon information compiled by Mrs Christine Standing (in relation to the Keysbrook Project) who is a Member of the Australasian Institute of Mining. Mrs Standing is an employee of Optiro Pty and has sufficient experience relevant to the style of mineralisation, the type of deposit under consideration and to the activity undertaken 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 the report of a summary based upon her information in the form and context in which it appears.

The information in this report which relates to Mineral Resources is based upon information compiled Mr John Baxter (in relation to the Railway Deposit) who is a Member of the Australasian Institute of Geoscientists. Mr Baxter is a Consulting Geologist with sufficient experience relevant to the style of mineralisation, the type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Baxter consents to the inclusion in the report of a summary based upon his information in the form and context in which it appears.

For supporting information on Keysbrook Mineral Resources, refer ASX release - *MZI increases Keysbrook Mineral Resources by 68%* - dated 7 August 2015.

## Competent Person's Statements – Ore Reserves

The information in this report which relates to Ore Reserves have been compiled by Mr Andrew Law of Optiro Pty Ltd, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Law has sufficient experience in Ore Reserve estimation relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting of Mineral Resources and Ore Reserve. Mr Law consents to the inclusion in the report of the matters compiled by him in the form and context in which it appears.