

# MINDARIE MINERAL SANDS PROJECT

## South Australia



**Australia-China Resources Symposium**  
Adelaide, South Australia  
11 July 2012

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# About Murray Zircon

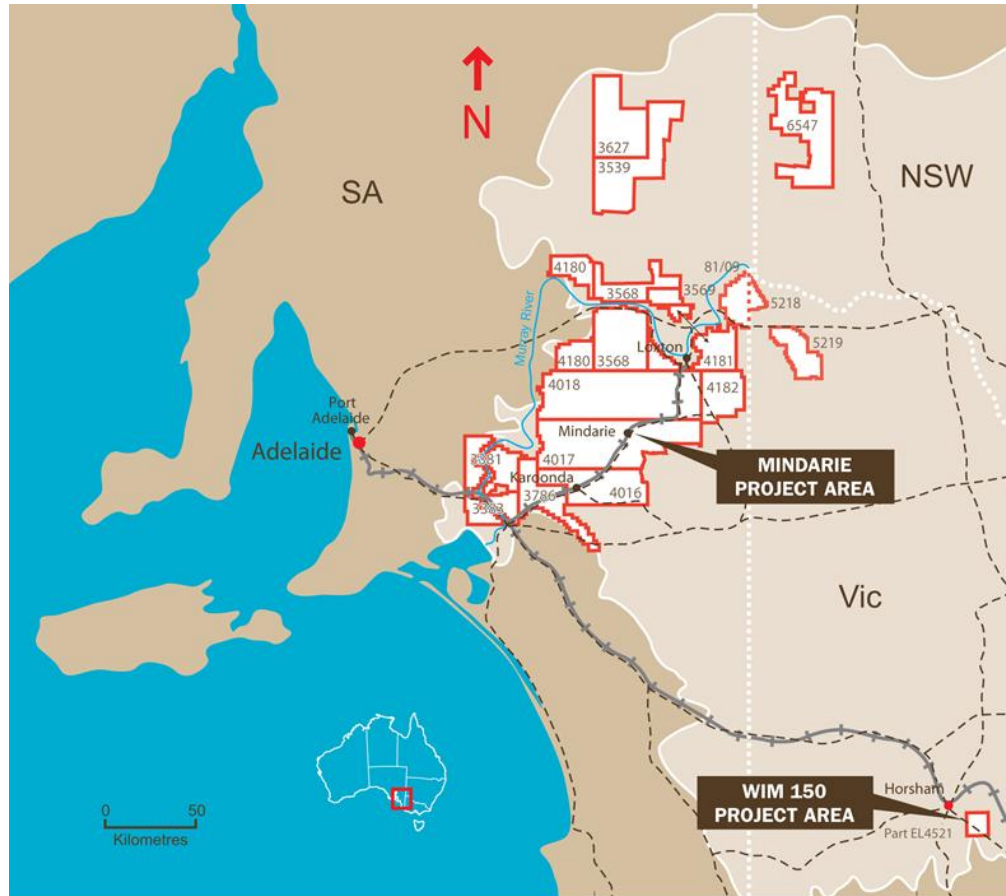
- Established in June 2011 , Murray Zircon Pty Ltd (MZ) is a joint venture between Orient Zirconic Science and Technology Industry Co. Ltd. (OZC) and Australian Zircon NL (AZC) with 65% and 35% ownership respectively.
- The Company's primary asset is the Mindarie Mineral Sands Project, located 150km east of Adelaide.
- MZ's product will be heavy mineral concentrate (HMC) which will be separated (by others) to produce Zircon, Ilmenite and Rutile.
- MZ also holds an exploration tenement portfolio covering over 11,000 km<sup>2</sup> within the Murray Basin in South Australia and the Wimmera in Victoria.

# About Orient Zirconic

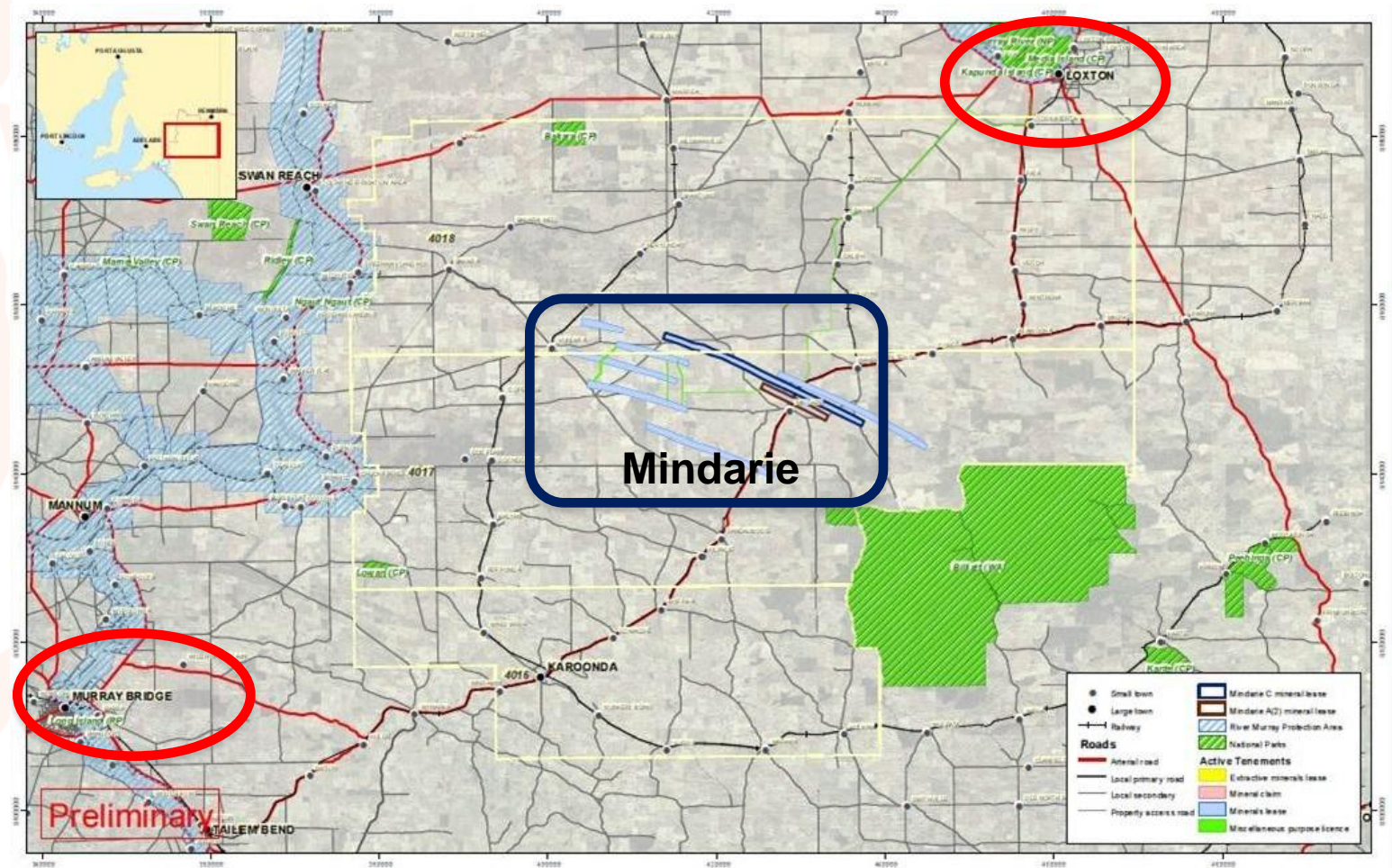
- **Guangdong Orient Zirconic Ind. Scientific & Technical Company Ltd (OZC)**, is one of China's leading zircon processing companies and is headquartered at Shantou in Guangdong Province (about 485km north east of Hong Kong).
- OZC has the **most comprehensive** range of zirconium products in the world, including zirconium dioxide, zirconium oxychloride, fused zirconia, zirconia structural ceramic and zirconium sponge, etc.
- OZC is listed on the Shenzhen Stock Exchange (Code:002167) with a market capitalisation over A\$ 1.22 Billion\*.

\*Share price and exchange rate on 06/07/2012.

# Location of Mindarie Project and Exploration Tenements



# Location of Mindarie Project





# Mindarie Project – History

- The Mindarie Project was originally developed by Australian Zircon Limited in 2006.
- The mine commenced operations in October 2007 following the construction of a Primary Concentrator Plant (PCP) and Mineral Separation Plant (MSP).

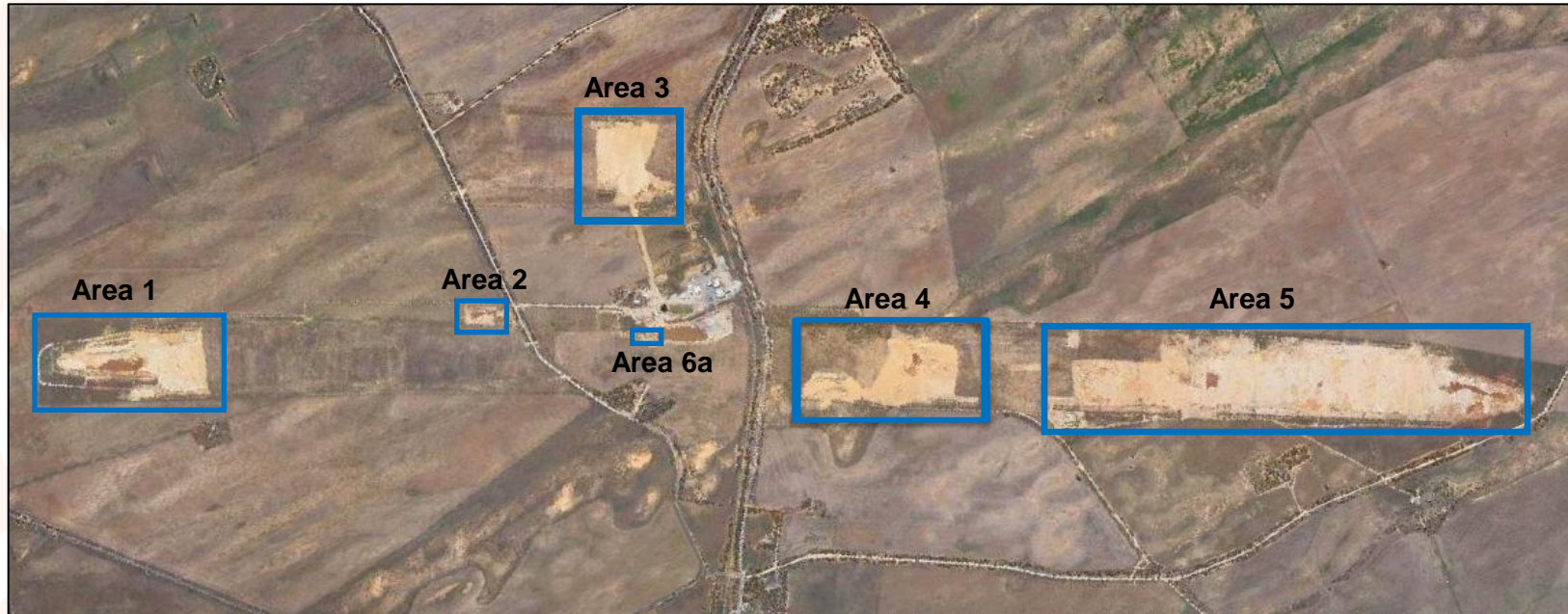


- In October 2009 the project was placed on care & maintenance.

# Mindarie Project – Redevelopment

- As part of its strategy to redevelop Mindarie, MZ proactively assumed responsibility for all remaining rehabilitation liability over previously mined areas.
- MZ's rehabilitation efforts commenced in August 2011 and were completed in March 2012.
- MZ initiated refurbishment of the PCP and associated wet plant facilities in October 2011.
- MZ successfully established positive relationships with the local community and all the landowners compensation agreements have been updated.
- In April 2012, MZ received regulatory approval of its Program for Environmental Protection and Rehabilitation (PEPR) from DMITRE of South Australia.

# Rehabilitation works



Aerial Photo: March 2011

## Phased Rehabilitation Milestones

Overburden	Completed December 2011
Sub-soil replacement	Completed February 2012
Top-soil replacement	Completed March 2012
Cropping	Completed April/May 2012



# Mindarie Project – Current Status

- Primary Concentrate Plant refurbishment/upgrade activities are ongoing and anticipated to be completed in August 2012.
- Mining contract and product logistics contract are anticipated to be finalised in July/August 2012.
- A new mining slurry unit is being fabricating and a new slurry pumping system will be completed in September.
- Resumption of mining and recommissioning of the PCP is anticipated to begin early in the 4<sup>th</sup> Quarter 2012.
- Export of HMC product is expected before the end of 2012.

# Mindarie Project Mineral Resource and Reserves

- Over 20 years mine life at production rate of 120,000 tonnes HMC (@90%) per annum

Classified reserves estimates above at variable total heavy minerals cut-off							
	Millions of Tonnes	% Total heavy minerals	% Slimes	Proportion of source material within heavy			
				*Zircon %	Leucoxene %	Rutile %	Ilmenite %
Proved Reserve <i>*Depleted for mining as at December 2009</i>							
<b>Total</b>	<b>20.3</b>	<b>4.4</b>	<b>10.8</b>	<b>23.9</b>	<b>6.3</b>	<b>5.1</b>	<b>62.5</b>
Probable Reserve							
<b>Total</b>	<b>34.1</b>	<b>4.2</b>	<b>11.1</b>	<b>19.3</b>	<b>6.5</b>	<b>4.6</b>	<b>66.4</b>
Classified resource estimates above a 1.0% total heavy minerals cut-off grade							
Measured Resource <i>*Depleted for mining as at December 2009</i>							
<b>Total</b>	<b>38.8</b>	<b>3.6</b>	<b>10.4</b>	<b>21.4</b>	<b>5.8</b>	<b>5.1</b>	<b>64.4</b>
Indicated Resource							
<b>Total</b>	<b>126.2</b>	<b>3.1</b>	<b>10.1</b>	<b>17.8</b>	<b>6.6</b>	<b>4.6</b>	<b>66.3</b>
Inferred Resource							
<b>Total</b>	<b>5.3</b>	<b>3.3</b>	<b>9.0</b>	<b>17.0</b>	<b>5.1</b>	<b>3.9</b>	<b>67.2</b>

\*2009 Mineral Resource and Reserve Estimates in accordance with the JORC Code by Snowden

# Highlights of Planned Operations

- Only Heavy Mineral Concentrate (HMC) will be produced at Mindarie.
- HMC will be transported from Mindarie by truck to the port, with seven to ten B-Doubles per day.
- HMC will be stockpiled at the port and bulk shipped to a processing facility in China for separation of zircon and various titanium minerals.
- OZC internal demand for zircon will support the Mindarie project.
- The current production target will be 10,000 tonnes/month HMC (@90% HM) for an initial period.

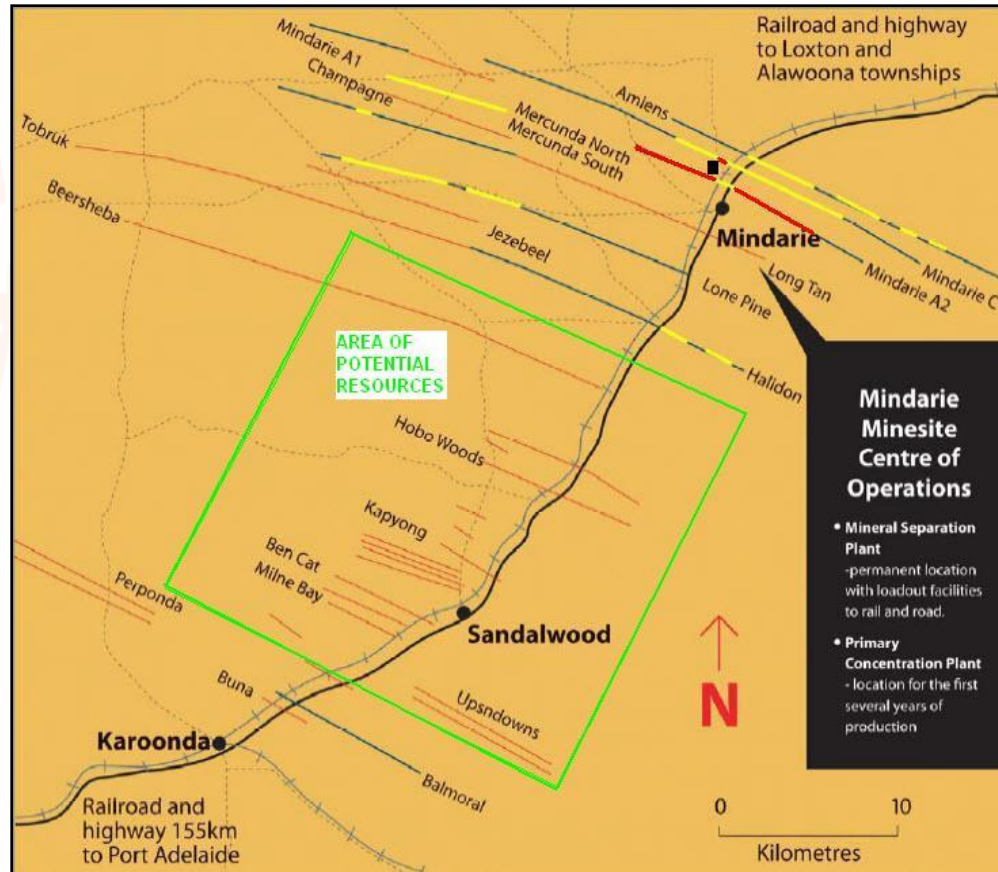
# Mindarie Project – Value Adding

- Vertical integration strategy: **secure demand and secure supply**
- Take advantage of downstream processing to maximize the recoverable value of mineral by achieving better recovery and lower costs
- Improved ‘moving hole’ mining method to control the mining cost
- Upgraded automation pumping and processing facilities to improve production efficiencies and maximise production rate
- Re-optimization of block model to minimise the strip ratio and maximise total minable reserves



# Future Exploration Potential

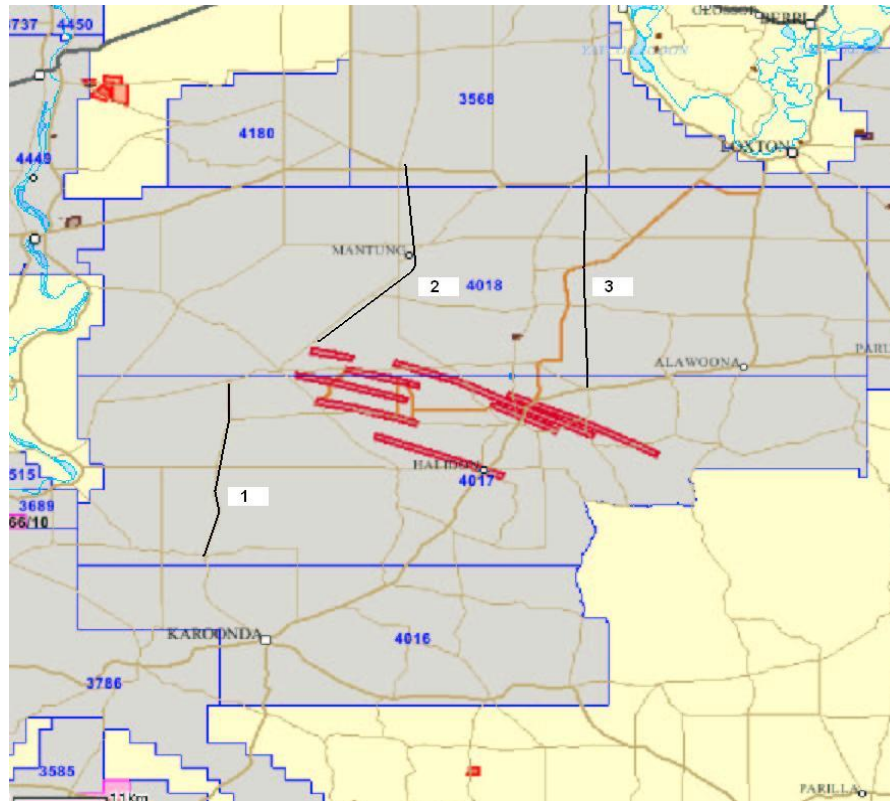
- The exploration potential for Murray Zircon tenements is significant



Proposed Resource Drilling Area

# Future Exploration Potential

- \$1.6 million exploration program was carried out in 2011/2012 financial year with very encouraging results.



Regional Drill Traverses

# Summary

- Murray Zircon is confident in the success of Mindarie Project
- The ‘value adding’ of OZC to the project is significant and OZC will also be rewarded by the vertical integration strategy
- Murray Zircon will focus on the long term development of the project by increasing the investment on regional exploration thus maximize the value of the project
- The success of Mindarie Project will be a positive demonstration to the potential Chinese investors who have the intention to invest in South Australia



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