

HIGHLIGHTS

- Quarterly saleable production increased 173% to 16,168 tonnes
- Total quarterly product sales of 11,397 tonnes and sales revenue of \$6.3 million
- Balance of US\$25.5m RCF Bridge Facility repaid
- Leucoxene sales commenced with first L70 shipment
- Total Ore Reserves increased 177%, pointing to +15 year mine life
- Keysbrook Project officially opened 4 April 2016
- 12 month Lost Time Injury free milestone achieved

The March quarter 2016 represented the first full quarter of commercial operations at the Company's flagship Keysbrook Project, following commissioning in the preceding quarter. The primary focus during the period was the production ramp-up towards targeted recovery and production rates following the achievement of nameplate plant throughput capacity and reliability in December 2015.

Production and sales data for the March quarter are depicted in Table 1 on page 3 of this report.

Comment

MZI Managing Director Trevor Mathews said: *"MZI successfully achieved a number of important milestones in the March quarter, despite encountering operational challenges not uncommon during the ramp-up phase of a major new project such as Keysbrook."*

"On the corporate front, the repayment of the US\$25.5 million RCF Bridge Facility has significantly streamlined our capital structure and greatly reduced our annual interest obligations, leaving us well placed to consolidate our new status as a globally significant producer of high value mineral sands products."

"We also clearly demonstrated the long term value of our Keysbrook business by almost trebling our Ore Reserves to the equivalent of 16 years of operation at currently planned production rates."

"At the same time, we continued to ramp up production and exported our first leucoxene shipment from Bunbury whilst also implementing operational changes we are confident will enable us to achieve our recovery and production targets in the near term."

"With our ramp-up progressing, and positive market indications emerging for key products, I look forward to further improvement in the June quarter."

CORPORATE

MZI finished the March 2016 quarter with \$3.1 million in cash and undrawn cash and guarantee facilities of \$13.0 million. Proceeds of \$3.2 million from the March L70 shipment were received in the first week of April and therefore not included in the quarter end cash position.

In late February 2016¹, the Company achieved a major milestone by completing its repayment of the US\$25.5 million drawn under the RCF Bridge Facility. Repayment of the outstanding US\$8.7 million was completed following shareholder approval of the third and final tranche of shares issued to RCF under the \$43 million capital raising undertaken in late 2015. Following the issue of shares for Tranche 3 and MZI's quarterly interest and commitment fees, Resource Capital Funds VI L.P.'s direct holding in MZI totalled approximately 41.9%.

Repayment of the RCF Bridge Facility has significantly simplified MZI's capital structure and reduced the Company's annual interest repayment obligations by approximately US\$2.5 million a year.

Subsequent to the end of the quarter², MZI announced the appointment of Mr Ronnie Beevor, a highly experienced financial markets executive and corporate advisor, as a Non-Executive Director. Mr Beevor was appointed as a nominee of RCF and brings strong corporate, resources financing and development expertise to the MZI Board.

Total issued capital at 31 March 2016 was 200,853,403 ordinary shares with a further 8,250,000 unlisted options with varying exercise prices and maturity dates.

Keysbrook Project

The primary focus of activity during the March quarter was the ramp up of production at the Keysbrook Project, following the commencement of production, completion of commissioning and commencement of product shipment and sales during the prior period.

Several key milestones were achieved in the period, including the successful maiden shipment of Keysbrook leucoxene in March, with the export of 6,825 tonnes of L70 from the Bunbury Port aboard the MV Furness St Kilda destined for the United States.

In March 2016³, MZI announced total Ore Reserves at the Keysbrook Project had been increased by 177% to 72 Million Tonnes grading 2.2% Heavy Minerals, equivalent to 16 years of operations at design production rates. Ore Reserves were previously estimated at 26Mt @ 2.6% HM, equivalent to 5.5 years of operation.

Subsequent to the end of the quarter, on 4 April 2016, the Keysbrook Project was officially opened by the Honourable Tony Simpson, MLA for Darling Range, and Western Australia's Minister for Local Government, Community Services, Seniors and Volunteering; Youth.

¹ Refer ASX release dated 24 February 2016

² Refer ASX release dated 15 April 2016

³ Refer ASX release dated 23 March 2016

QUARTERLY ACTIVITIES REPORT

FOR THE PERIOD ENDING 31 MARCH 2016



Operations

Table 1: Keysbrook Production and Sales

Production	Unit	Dec-Qtr-2015	Mar-Qtr-2016	Total YTD
Ore Mined	dt	618,480	886,357	1,504,837
Ore Processed	dt	599,369	847,995	1,447,364
Mined Grade	% HM	2.99	2.58	2.74
WCP Availability	%	82.4	83.5	83.0
MSP Availability	%	Commissioning	85.7	85.7
HMC Production (WCP)	dt	16,008	19,566	35,574
HMC Processed (MSP)	dt	9,011	24,055	33,066
L70	dt	2,315	6,337	8,652
L88	dt	1,795	4,943	6,738
Zircon concentrate	dt	1,775	4,888	6,633
Sales				
L70	dt	-	6,825	6,825
L88	dt	-	-	-
Zircon concentrate	dt	958	4,572	5,530
Total – all products	dt	958	11,397	12,355

Mining continued according to plan in the period, with total ore mined of 886,357 tonnes in the March quarter, compared with 618,480 tonnes in the preceding quarter. The mined grade for the quarter was 2.58% HM compared with 2.99% HM for the previous quarter. Ore processed totalled 847,995 tonnes compared with 599,369 tonnes in the preceding quarter.

Since the attainment of nameplate plant throughput rates and reliability performance in late 2015, the operational focus has been on improving heavy mineral recovery both at the Keysbrook Wet Concentrator Plant (WCP) and Doral's Mineral Separation Plant (MSP) and in achieving long term sustainable throughput rates and plant reliability.

Production of Heavy Mineral Concentrate at the WCP totalled 19,566 tonnes in the March quarter, compared with 16,008 tonnes in the preceding quarter. Production of saleable products for the March quarter increased 173% to 16,168 tonnes, compared with 5,885 tonnes in the previous quarter.

As previously reported⁴, while recovery of zircon was broadly in line with design with some variability in L70 recovery performance, high recirculating loads in the WCP resulted in L88 recovery rates being below design. Heavy mineral recovery in the WCP averaged approximately 55% for the March quarter. A program of changes to plant operations, including a relatively simple operational change to unload the spiral circuit and

⁴ Refer ASX release dated 22 April 2016.

low cost WCP flowsheet changes was initiated during the March quarter to address the recirculation issue, improve recoveries and achieve targeted L88 production rates.

The optimisation program is in its early stages, however an improvement trend is evident, with further significant improvements in plant performance in the past week. In addition, Doral has commenced work to improve MSP throughput rates and L88 recovery prior to the next monthly MSP processing run scheduled for mid-May.

Total operating expenditure was lower than planned for the quarter, totalling \$6.7 million, reflecting lower energy usage and fuel costs, with cashflow adversely impacted by the lower L88 production and the resulting effect on short-term sales volumes and costs associated with the production improvement program mentioned previously. However, contingent facilities under the financing arrangements with both RMB and RCF are available which will enable the Company to manage the impacts on cashflow whilst the L88 production issues are addressed.

Operating expenditure equated to an all-in cash operating cost of approximately \$414 per tonne of saleable production in the period.

Sales

During the March quarter the Company continued zircon concentrate shipments from the Keysbrook mine with the export of 4,572 tonnes of zircon concentrate from the Port of Fremantle to major Chinese customer Tricoastal/Wensheng. Leucoxene shipments to major US customer Chemours also commenced in the quarter with 6,825 tonnes of L70 product shipped in mid-March⁵. As previously reported, the maiden shipment of L88 originally planned for early April is now scheduled to occur later in the current quarter reflecting slower than expected build-up of saleable L88 stocks and the timing of customer-arranged ship arrivals.

Despite the rescheduled L88 shipment, sales of all products for the March quarter totalled 11,397 tonnes, comprising 4,572 tonnes of zircon concentrate and 6,825 tonnes of L70.

With larger shipment sizes (some representing approximately 3 months of production), shipping volumes and revenue will vary from quarter to quarter reflecting customer delivery requirements and the time needed to build sufficient final product stocks. MZI is responsible for arranging all zircon concentrate shipments, while contracted leucoxene shipments are arranged by the Company's offtake customer to suit their product delivery requirements and shipment schedule.

Sales revenue totalled \$6.3 million for the March quarter, including revenue for the initial shipment of zircon concentrate dispatched in late December 2015 and the L70 shipment dispatched in the quarter, for which the proceeds were received in the first week of April.

In February 2016⁶, MZI received a Volume Reduction Notice from its leucoxene offtake customer advising that it was exercising its contractual rights to reduce its L70 and L88 contract volumes for calendar 2016 by 6,440 tonnes and 6,750 tonnes respectively. MZI understands the reductions are applied to all the customer's contracted sales volumes for equivalent material in accordance with its global pigment production strategy. The reduction takes effect three months from the date of the notice being received, and applies to leucoxene

⁵ Refer ASX release dated 11 March 2016

⁶ Refer ASX release dated 22 February 2016

sales for 2016 only, with affected volumes able to be sold to alternative customers. Approximately 73% of the Company's total 2016 zircon and leucoxene production remains committed under long term offtake agreements.

Testwork has continued with potential customers regarding future supply of L88 leucoxene. Samples representative of the actual Keysbrook production have been satisfactorily tested by a number of potential customers with no adverse findings. Trial processing of small shipments of Keysbrook L88 will be undertaken and subject to plant trial qualification it is expected that MZI will enter into negotiations regarding further offtake agreements.

Mineral Sands Market

Mineral sands products such as rutile and leucoxene contain mid to high levels of titanium dioxide (TiO_2), which is primarily used in the manufacture of pigments in paints, plastics, inks and coatings. TiO_2 is also used to produce titanium metal which is most commonly associated with aerospace components and other specialist applications. Zircon is a major component in ceramics used to manufacture tiles and bathroom furniture and is also used in specialty chemicals, precision castings and specialty metals. Consequently, the mineral sands market is closely aligned with global economic growth and urbanisation.

The mineral sands market remained soft during the March quarter, reflecting volatility in global commodity and equity markets, which continue to impact consumer confidence and demand for final products. There is a continuing sentiment that the mineral sands market cycle is near the bottom as the impact of capacity mine closures starts to affect supply and inventory. Although prices for all products have softened, the outlook remains positive with some recovery expected later in 2016. All major pigment producers have announced price increases to take effect from the beginning of Q2 2016 further signalling the bottom of the price cycle.

The US economy has remained relatively strong which augers well for pigment consumption in 2016. However, an excess of pigment inventory continued to dampen demand in the March quarter delaying an expected rise in feedstock price. The demand for chloride pigment is expected to remain relatively strong and ultimately put upward price pressure on high- TiO_2 feedstock such as rutile and leucoxene. Economic growth in the US and Europe is still expected to continue to remain positive throughout 2016, supporting overall pigment demand.

Weakness in the Chinese economy has been driving negative sentiment in the zircon and TiO_2 coatings sector, although some recent positive signs with increased housing starts and an expanding PMI may help rebuild confidence and stimulate other parts of the economy. The zircon price has reduced but major zircon producers continue to limit their production to ensure the market is not oversupplied and that supply remains in line with demand. The outlook for the Chinese economy is more positive than in recent times as the government continues its transition towards a more consumer demand driven economy.

Health, Safety and Environment

There were no Lost Time Injuries during the reporting period with a milestone of 12 months without a Lost Time Injury completed during March. The Company wide rolling 12-month Total Recordable Injury Frequency Rate (per 1 million hours worked) was 21.8 at the close of the period. Proactive reporting of potential hazards by employees continued during the period providing a strong platform for the reduction of the risk of harm, damage or loss.

Community

On 4 April, the Keysbrook operations were officially opened by the Honourable Tony Simpson, MLA for Darling Range, and Western Australia's Minister for Local Government, Community Services, Seniors and Volunteering; Youth. The event was attended by over 100 stakeholders, including local suppliers and recipients of community partnership funding. As the largest new project in the Peel region in recent times, the opening of the Keysbrook project was welcomed as a much needed boost to the region in terms of socio-economic benefits, including the creation of 60 direct locally-based jobs, further employment creation through service providers and significant local supply content for ongoing operations.

Tiwi Islands

No significant activity occurred during the March 2016 quarter.

EXPLORATION

The main focus for the first half of the quarter was providing technical assistance to the Keysbrook Project.

A project to compile historic data for newly acquired leases in the southern Perth Basin was completed during the quarter. Initial assessment of this data revealed some areas of potential for deposits similar to Keysbrook which will be further assessed in the upcoming quarter.

Aircore drilling commenced at Keysbrook on 14 March, with efforts being focussed on the 18-24-month grade control. At the end of March 286 holes had been drilled for 1,144 metres.

Drilling planned for the June quarter will focus on completion of the grade control program, with additional drilling to expand the resource incrementally to the north and south. An additional 400 holes, totalling 2000 metres, are scheduled to be drilled to complete this program.

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QUARTERLY ACTIVITIES REPORT

FOR THE PERIOD ENDING 31 MARCH 2016



SCHEDULE OF TENEMENTS AS AT 31 MARCH 2016

Tenement	Location	Status	Registered Holder	Interest at quarter end
E70/2407	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty. Ltd.	100%
E70/2610	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty. Ltd.	100%
E70/2673	Pinjarra, WA	Application	MZI Resources Ltd	100%
E70/4628	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty. Ltd.	100%
E70/4723	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty. Ltd.	100%
E70/4725	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty. Ltd.	100%
E70/4764	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty. Ltd.	100%
E70/4765	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty. Ltd.	100%
E70/4766	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty. Ltd.	100%
E70/4767	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty. Ltd.	100%
E70/4768	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1662	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1663	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1676	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1677	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1678	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1679	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1680	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1682	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1683	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1684	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1685	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
EL23862	Tiwi Islands, NT	Granted	MZI Resources Ltd	100%
EL24329	Tiwi Islands, NT	Granted	MZI Resources Ltd	100%
EL24851	Tiwi Islands, NT	Granted	MZI Resources Ltd	100%
EL25457	Anson Bay, NT	Application	MZI Resources Ltd	100%
EL25458	Anson Bay, NT	Application	MZI Resources Ltd	100%
EL25459	Anson Bay, NT	Application	MZI Resources Ltd	100%
EL25460	Anson Bay, NT	Application	MZI Resources Ltd	100%
EL25461	Anson Bay, NT	Application	MZI Resources Ltd	100%
EL26421	Anson Bay, NT	Application	MZI Resources Ltd	100%
EL29800	Croker Island, NT	Application	MZI Resources Ltd	100%
EL29839	Arnhem Land, NT	Application	MZI Resources Ltd	100%
EL30924	Tiwi Islands, NT	Application	MZI Resources Ltd	100%
ML24510	Tiwi Islands, NT	Granted	MZI Resources Ltd	100%
ML24511	Tiwi Islands, NT	Granted	MZI Resources Ltd	100%
ML27438	Tiwi Islands, NT	Granted	MZI Resources Ltd	100%