

## QUARTERLY REPORT

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*TiZir Limited owns 90% of the Grande Côte Mineral Sands Project in Senegal, West Africa and 100% of the ilmenite upgrading facility TiZir Titanium & Iron, in Tyssedal, Norway.*

### 2Q 2015 OPERATIONS REVIEW

#### KEY POINTS

- Mining operations continued to ramp-up at GCO
- Heavy Mineral Concentrate ('HMC') and finished goods production increased on a quarter by quarter basis
- June 2015 represented the best month for finished goods production with approximately 40kt of ilmenite and 5kt of zircon produced
- Unplanned shutdown of pre-reduction kiln at TTI resulted in a loss of 9kt of expected slag production during the quarter
- Processing of first batch of 100% GCO ilmenite completed successfully at TTI
- Furnace reline and capacity expansion project ongoing prior to planned shutdown – current expectations are that the project will be completed on time and within budget
- Products meeting specifications – zircon products in particular are attracting positive customer feedback
- Titanium market remains soft due to downstream weakness in the pigment market, but pricing was stable during the quarter
- Zircon market continues to be stable

#### GCO

Operations continued to ramp-up during the quarter with key focus areas being plant availability and tailings management. The floating wet concentrator plant ('WCP') is the focus of current attention with the plant not yet able to handle the volume of ore that the dredge can provide. A range of discrete commissioning projects on both the dredge and Wet Concentrator Plant ('WCP') have been identified and are currently being implemented. The projects are generally straightforward and minor in terms of capital but will require some time to complete due to timing of equipment deliveries and associated engineering works.

Consistent with the focus on improving the performance of various WCP circuits, the dredge feed rate was deliberately limited during the quarter to 5,500tph. The dredge and WCP operated at an average of 55% of nameplate capacity (based on ore mined) in 2Q compared with 61% in 1Q 2015. Excluding downtime associated with commissioning issues, the throughput rate achieved remained unchanged at 78% of capacity (based on tonnes per operating hour capacity) or 5,447tph.

The ramp-up of the Mineral Separation Plant continued to meet expectations with both the Wet Plant and the Ilmenite Circuit of the Dry Plant continuing to operate at design feed rates. Ilmenite and zircon production increased to an average of 32.5kt and 3.8kt per month respectively. June represented the best month of finished goods production to date with approximately 40kt of ilmenite and 5kt of zircon produced during the month.

During the quarter, GCO appointed Daniel Marini as its new Chief Executive Officer. He brings many years of large-scale mine management experience to GCO having previously held the position of Director of Mines at Société Le Nickel's (ERAMET Group) operations in New Caledonia. To provide technical support to the operations during the finalisation of commissioning, two experienced mineral sands experts from Australia have also been contracted.

**GCO production volumes**

100% basis		2Q 2014	3Q 2014	4Q 2014	1Q 2015	2Q 2015
<b>Mining:</b>						
Ore mined	(kt)	2,609	4,717	6,776	8,039	<b>7,522</b>
Heavy mineral concentrate produced	(t)	37,240	57,526	89,333	131,649	<b>136,648</b>
<b>Finished goods production</b>						
Ilmenite	(t)	11,463	47,702	41,425	89,789	<b>97,789</b>
Zircon	(t)	-	3,762	5,278	9,118	<b>11,357</b>
Rutile & Leucoxene	(t)	-	190	473	1,635	<b>1,247</b>

**GCO sales volumes**

100% basis		3Q 2014	4Q 2014	1Q 2015	2Q 2015
<b>Sales volume</b>					
Ilmenite (including sales to TTI)	(t)	28,074	46,850	71,857	<b>64,051</b>
Zircon	(t)	1,205	5,848	6,502	<b>12,196</b>
Rutile & Leucoxene	(t)	-	162	22	<b>1,406</b>

Sales of zircon increased for the third successive quarter as production continued its ramp-up; however, ilmenite sales decreased as a result of timing of product shipments to offtake customers. As stated previously, GCO has successfully negotiated sales contracts with external customers for the majority of its 2015 budgeted ilmenite production.

Whilst GCO recorded its first month of positive EBITDA in March 2015, timing of shipments and constrained production (outlined above) have resulted in the operations not reaching this level on a consistent basis. Pressure continues to be exerted on revenues as commodity prices remain soft.



*Grande Cote Operations Wet Concentrator Plant and Mineral Separation Plant*

## TTI

Titanium slag production of 37.1kt for the quarter was lower than both 1Q 2015 and 2Q 2014 due to an unplanned maintenance shutdown. During April, the pre-reduction kiln was shut down to remove accretion of iron waste in the kiln. The shutdown reduced the availability of pre-reduced feedstock for the furnace and thus expected production of approximately 9kt of titanium slag and 5kt of high purity pig iron was lost prior to resumption of production at normal capacities.

During the period, a process run of 100% GCO ilmenite was successfully completed, confirming previous trials and results.

Sales of 38.8kt for the quarter reflected production levels. Consistent with tight economic conditions, customers continued to delay shipments throughout the quarter. While strong competition and lower demand levels continue to prevail throughout the titanium market, pricing remained stable during the quarter.

High purity pig iron production volumes for 2Q 2015 were slightly lower than 1Q 2015, whilst sales volumes were slightly higher. Pricing remained firm due to enduring political instability in Ukraine which is contributing to tighter supply.

Cost optimisation initiatives implemented throughout 2014 continued to be successful in reducing operational costs and maintaining the competitiveness of TTI products.

### TTI physical volumes

100% basis		2Q 2014	3Q 2014	4Q 2014	1Q 2015	2Q 2015	1H 2014	1H 2015
Titanium Slag Produced	(kt)	48.4	45.8	47.5	43.8	<b>37.1</b>	90.4	<b>80.9</b>
Sold	(kt)	48.1	43.9	47.8	30.2	<b>38.8</b>	86.5	<b>69.0</b>
High Purity Pig Iron Produced	(kt)	27.4	25.7	26.4	24.0	<b>20.2</b>	50.9	<b>44.2</b>
Sold	(kt)	28.3	27.0	20.5	19.8	<b>23.5</b>	58.2	<b>43.3</b>



TiZir Titanium & Iron ilmenite upgrading facility, Tyssedal, Norway

## **TTI FURNACE RELINE AND CAPACITY EXPANSION PROJECT**

Work on the furnace reline and capacity expansion project at TTI is well advanced as the planned shut down in mid-September approaches. Primary contractors have been engaged and a majority of capital equipment and supplies to complete the project have been contracted and have begun arriving on-site. Current expectations are that the project will be completed within budget and on-time.

## **MARKETS**

Conditions in the titanium dioxide pigment industry remained weak throughout the quarter, reflecting soft demand and strong competition. The seasonal surge in demand that generally accompanies the northern hemisphere summer was not as strong as in previous years and the anticipated pigment price rises did not materialise. Despite these conditions, prices in the high grade titanium feedstock market remained relatively stable. Sulphate feedstock prices remain under pressure, as structural overcapacity persists within China.

Given the quality of GCO zircon, its major customer markets tend to be North America and Europe where demand is geared towards premium quality zircon for high value zirconium products and opacifiers for ceramic tiles. This market has been relatively stable during the quarter.