

18 April 2013

## QUARTERLY PRODUCTION REPORT 31 MARCH 2013

### SUMMARY OF PHYSICAL AND FINANCIAL DATA

	Mar-12 Quarter	Dec-12 Quarter	Mar-13 Quarter	Mar-13 Qtr vs Dec-12 Qtr	Mar-13 Qtr vs Mar-12 Qtr
	kt	kt	kt	kt	%
<b><u>Production</u></b>					
Zircon	115.7	56.5	56.1	(0.7)	(51.5)
Rutile	50.7	56.7	25.8	(54.5)	(49.1)
Synthetic Rutile	50.6	52.7	29.0	(45.0)	(42.7)
<b>Total Z/R/SR Production</b>	<b>217.0</b>	<b>165.9</b>	<b>110.9</b>	<b>(33.2)</b>	<b>(48.9)</b>
Ilmenite – Saleable & Upgradeable	196.0	115.8	160.9	38.9	(17.9)
<b>Total Mineral Sands Production<sup>1</sup></b>	<b>413.0</b>	<b>281.7</b>	<b>271.8</b>	<b>(3.5)</b>	<b>(34.2)</b>
<b><u>Mineral Sands Revenue A\$ million</u></b>	196.3	182.5	139.9	(23.3)	(28.7)
<b><u>Average AUD:USD cents</u></b>	105.6	103.9	103.9	0.0	1.6

### OVERVIEW

- In line with Iluka's previous announcements regarding production curtailment actions<sup>2</sup>, Iluka's combined production of zircon, rutile and synthetic rutile (Z/R/SR) in the March quarter was 110.9 thousand tonnes, materially lower than the preceding December 2012 quarter (down 33.2 per cent) and the March 2012 quarter (down 48.9 per cent). Further measures to reduce production are being implemented in the June quarter, including idling of all synthetic rutile operations, with production expected to decline further as a result, before the restoration of more usual operating settings as demand recovers and a draw down of finished goods inventory occurs. Such a restoration can be achieved promptly as market conditions warrant.
- Mineral sands revenue for the three months to 31 March 2013 was \$139.9 million. The lower revenue compared with the same period in 2012 (\$196.3 million), notwithstanding higher sales volumes, mainly reflects lower received prices period-on-period.

<sup>1</sup> Total mineral sands production includes ilmenite available for upgrading to synthetic rutile and that available for sale. For both commercial reasons and given the company's increased flexibility the company has to utilise ilmenite production from multiple sources, for upgrading to synthetic rutile, the company no longer separates ilmenite production into saleable and upgradeable components. The relative utilisation of ilmenite for upgrading or sale will be more apparent with the reporting of sales volumes in the June and December quarterly reports.

<sup>2</sup> Refer Iluka ASX Release, Production Cuts and Cost Reductions, 21 February 2013.

## **MARKET CONDITIONS<sup>1</sup>**

### **Zircon**

Iluka has seen evidence of a strengthening in demand for zircon during the first quarter in its main markets, with the exception of Europe. A stronger level of customer inquiries and orders relative to preceding quarters is being experienced and, in Iluka's view, market trends provide confirmation of commentary in February (associated with the full year results) that significant production reductions and an improvement in business confidence levels in key markets, could be expected to provide a basis for a period of price stability. This, in turn, should facilitate more usual demand patterns over time.

Of Iluka's markets, China has shown the most marked improvement; with a re-emergence of demand in the housing and commercial sector and a recovery in refractory and foundry demand. Zirconia demand is strong and while zirconium chemical (zirconium oxychloride) demand is improving, it remains subdued relative to previous periods of market recovery. South East Asian markets are also showing early signs of improved demand.

The North American market for zircon has stabilised but Europe continues to remain the weakest market for zircon globally.

### **High Grade Titanium Dioxide**

In the case of Iluka's high grade titanium dioxide products of rutile and synthetic rutile, Iluka advised previously that it expected demand in the first half of 2013 to be sluggish and this proved to be the case in the first quarter, with subdued sales associated mainly with low pigment plant utilisation/production levels.

A positive development for titanium dioxide markets is the continued improvement in US housing completions, prices and sales.

## **PRODUCTION**

Zircon production for the three months to 31 March was 56.1 thousand tonnes, a similar level to the December quarter 2012 of 56.5 thousand tonnes but markedly lower than the previous corresponding March quarter 2012 of 115.7 thousand tonnes.

The lower zircon production reflects the planned reduced processing of concentrate at both the Narngulu (Western Australia) and Hamilton (Murray Basin) mineral separation plants.

Rutile production for the three months to 31 March was 25.8 thousand tonnes, compared with 56.7 thousand tonnes in the December quarter 2012 and 50.7 thousand tonnes in the March quarter 2012. The lower rutile production mainly reflects the lower processing of concentrate from the Woornack, Rownack and Pirro mining operation at the Hamilton mineral separation plant in Victoria.

Synthetic rutile production in the March quarter was 29.0 thousand tonnes, compared with 52.7 thousand tonnes in the December quarter 2012, and 50.6 thousand tonnes in the March quarter 2012. The lower production reflects the idling of synthetic rutile kiln 3 in Narngulu, Western Australia, from December 2012 and the sole operation of synthetic rutile kiln 2 in the quarter, at a throughput rate of approximately 55 per cent of normal capacity. This kiln is planned to be idled also at the end of the second quarter of 2013, with the company relying on inventory to meet expected near term market demand.

Ilmenite production in the March quarter was 160.9 thousand tonnes. This includes ilmenite available for sale and to be upgraded to synthetic rutile.

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<sup>1</sup> It is not Iluka's practice to provide sales volumes other than at the June and December quarterly reporting periods. Pricing commentary is typically provided at half or full year results announcements unless there has been a material change in prices. Iluka's most recent commentary on prices was provided in its full year results on 21 February 2013 – refer ASX Release.

Iluka's main production initiatives during the March quarter included:

- reduced processing of concentrate at the Narngulu mineral separation plant in Western Australia, with the plant operating at or below 50 per cent utilisation;
- the Hamilton mineral separation plant in the Murray Basin operating on a one-month-on, one-month-off basis, with utilisation at approximately 45 per cent or normal capacity; and
- in Virginia, mining and processing plant operations returning to normal in February in order to optimise group chloride ilmenite production as a feedstock to a new high grade titanium dioxide product, Ultra SR.

A feature of the activities is reduced processing of heavy mineral concentrate at the company's two Australian mineral separation plants. This entails an increase in heavy mineral concentrate held in stockpiles. On a group basis, 452.2 thousand tonnes of heavy mineral concentrate was produced and 266.7 thousand tonnes processed.

Other production reductions planned for the second quarter include idling:

- synthetic rutile kiln 2 in the South West, Western Australia, from the end of the second quarter;
- the Tutunup South mine, Western Australia, given this mine provides ilmenite feedstock for synthetic rutile kiln 2;
- as previously announced, the completion of the idling of the Eneabba operation in Western Australia; and
- plant 1 at the Narngulu mineral separation plant from April 2013, with plant 2 utilisation at or below 50 per cent level until demand warrants restoration of normal throughputs.

#### **GROUP MINERAL SANDS PRODUCTION**

The following table details Iluka's total production by product group, with the source of that production attributed to the regional operating mines and basins. Processing of final product occurs in Australia, at one of two mineral separation plants, at Hamilton, Victoria, and Narngulu, Western Australia. Iluka also has a mineral separation plant at Virginia, United States. A similar table showing a 12 month comparison is on page 5. Given the integrated nature of Iluka's Australian operations, heavy mineral concentrate is capable of being processed into final product at one or both of the Australian mineral processing facilities. Appendix 1 provides details of the physical flows from mining operations to mineral processing facilities.

## Physical Production – Quarterly Comparison

	Mar-12 Quarter	Dec-12 Quarter	Mar-13 Quarter	Mar-13 Qtr vs Dec-12 Qtr	Mar-13 Qtr vs Mar-12 Qtr
	kt	kt	kt	%	%
<b>Zircon<sup>1</sup></b>					
Eucla/Perth Basin (SA/WA)	67.2	15.2	32.8	115.8	(51.2)
Murray Basin (VIC)	34.8	32.4	13.3	(59.0)	(61.8)
<b>Australia</b>	<b>102.0</b>	<b>47.6</b>	<b>46.1</b>	<b>(3.2)</b>	<b>(54.8)</b>
<b>Virginia (USA)</b>	<b>13.7</b>	<b>8.9</b>	<b>10.0</b>	<b>12.4</b>	<b>(27.0)</b>
<b>Total Zircon Production</b>	<b>115.7</b>	<b>56.5</b>	<b>56.1</b>	<b>(0.7)</b>	<b>(51.5)</b>
<b>Rutile</b>					
Eucla/Perth Basin (SA/WA)	16.8	6.5	9.5	46.2	(43.5)
Murray Basin (VIC)	33.9	50.2	16.3	(67.5)	(51.9)
<b>Total Rutile Production</b>	<b>50.7</b>	<b>56.7</b>	<b>25.8</b>	<b>(54.5)</b>	<b>(49.1)</b>
<b>Synthetic Rutile (WA)</b>	<b>50.6</b>	<b>52.7</b>	<b>29.0</b>	<b>(45.0)</b>	<b>(42.7)</b>
<b>TOTAL Z/R/SR PRODUCTION</b>	<b>217.0</b>	<b>165.9</b>	<b>110.9</b>	<b>(33.2)</b>	<b>(48.9)</b>
<b>Ilmenite – Saleable &amp; Upgradeable</b>					
Eucla/Perth Basin (SA/WA)	92.2	53.4	91.9	72.1	(0.3)
Murray Basin (VIC)	50.5	17.0	21.1	24.1	(58.2)
<b>Australia</b>	<b>142.7</b>	<b>70.4</b>	<b>113.0</b>	<b>60.5</b>	<b>(20.8)</b>
<b>Virginia (USA)</b>	<b>53.3</b>	<b>45.4</b>	<b>47.9</b>	<b>5.5</b>	<b>(10.1)</b>
<b>Total Ilmenite – Saleable &amp; Upgradeable</b>	<b>196.0</b>	<b>115.8</b>	<b>160.9</b>	<b>38.9</b>	<b>(17.9)</b>
<b>TOTAL MINERAL SANDS PRODUCTION</b>	<b>413.0</b>	<b>281.7</b>	<b>271.8</b>	<b>(3.5)</b>	<b>(34.2)</b>

<sup>1</sup> Iluka's zircon production figures include small volumes of zircon attributable to external processing arrangements.

## Physical Production – 12 Month Comparison

	12 mths to Mar-12	12 mths to Mar-13	12 mth Mar-13 vs 12 mth Mar-12
	kt	kt	%
<b>Zircon</b>			
Eucla/Perth Basin (SA/WA)	310.2	123.8	(60.1)
Murray Basin (VIC)	205.1	114.1	(44.4)
<b>Australia</b>	<b>515.3</b>	<b>237.9</b>	<b>(53.8)</b>
<b>Virginia (USA)</b>	<b>60.1</b>	<b>45.7</b>	<b>(24.0)</b>
<b>Total Zircon Production</b>	<b>575.4</b>	<b>283.6</b>	<b>(50.7)</b>
<b>Rutile</b>			
Eucla/Perth Basin (SA/WA)	66.8	42.8	(35.9)
Murray Basin (VIC)	202.2	152.7	(24.5)
<b>Total Rutile Production</b>	<b>269.0</b>	<b>195.5</b>	<b>(27.3)</b>
<b>Synthetic Rutile (WA)</b>	<b>257.8</b>	<b>226.7</b>	<b>(12.1)</b>
<b>TOTAL Z/R/SR PRODUCTION</b>	<b>1,102.2</b>	<b>705.8</b>	<b>(36.0)</b>
<b>Ilmenite – Saleable &amp; Upgradeable</b>			
Eucla/Perth Basin (SA/WA)	317.8	290.3	(8.7)
Murray Basin (VIC)	124.1	139.4	12.3
<b>Australia</b>	<b>441.9</b>	<b>429.7</b>	<b>(2.8)</b>
<b>Virginia (USA)</b>	<b>267.9</b>	<b>209.3</b>	<b>(21.9)</b>
<b>Total Ilmenite –Saleable &amp; Upgradeable</b>	<b>709.8</b>	<b>639.0</b>	<b>(10.0)</b>
<b>TOTAL MINERAL SANDS PRODUCTION</b>	<b>1,812.0</b>	<b>1,344.8</b>	<b>(25.8)</b>

## PLANNED NEW PRODUCTION

### Balranald, New South Wales

Balranald and Nepean are two rutile-rich deposits in the northern Murray Basin, New South Wales.

During the quarter a pre-feasibility study for the potential development of the Balranald and Nepean deposits was completed. The deposits provide the potential for approximately eight years of rutile and associated zircon production. In light of market conditions and Iluka's production response activities, as detailed in this report, the planned definitive feasibility study will be deferred. This deferral is also consistent with the company focus on the reshaping of capital expenditure profiles during low cycle market conditions.

In this context, Iluka will proceed with all necessary regulatory approvals and innovative mine design work but defer the commencement of the definitive feasibility study for at least 12 months (until 2014).

### Cataby, Western Australia

Iluka is undertaking a pre-feasibility study for the Cataby mineral sands deposit, located north of Perth. Cataby is a high quality chloride ilmenite deposit, which is also expected to produce material levels of zircon during its initial years.

The pre-feasibility study is expected to be complete by mid 2013.

### **Hickory, Virginia, United States of America**

The Hickory mineral sands deposits in Virginia are located approximately 19 kilometres west of the existing Iluka Stony Creek mineral separation plant. The Hickory project will constitute a third mine and mineral concentrating operation in Virginia, producing high quality chloride ilmenite and an associated zircon production stream.

The definitive feasibility study for the Hickory project was completed in the December quarter 2012. Detailed engineering and securing of operating permits is advancing in accordance with schedule.

### **Aurelian Springs, North Carolina, United States of America**

The Aurelian Springs project involves a pre-feasibility study for the potential development of multiple mineral sands deposits, located in Halifax County, North Carolina, approximately 90 kilometres south of Iluka's mineral separation plant at Stony Creek.

The evaluation is based currently on the relocation of the Concord mining unit and concentrator plant to Aurelian Springs in 2015. A definitive feasibility study is planned to commence in late 2013 to undertake detailed engineering design and secure the required operating permits.

### **Eucla Basin, South Australia**

Iluka has undertaken a scoping study on the Sonoran, Atacama and Typhoon satellite deposits adjacent to the Jacinth-Ambrosia operation in the Eucla Basin. Chloride ilmenite from these deposits is expected to be suitable as a feed source to Iluka's synthetic rutile kilns or for direct sale. The deposits would also produce associated zircon. The company plans to progress the potential development of one or more of these deposits through a pre-feasibility study.

## EXPLORATION

### Murray Basin

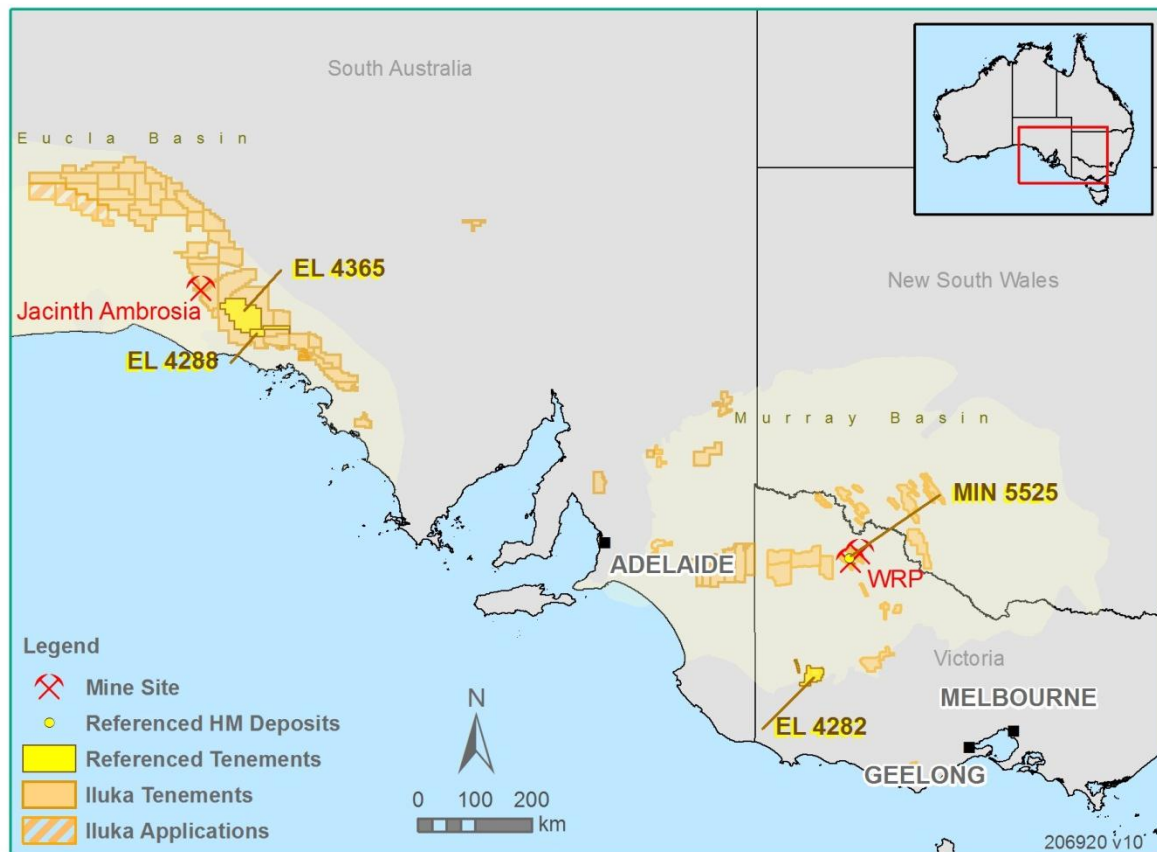
Exploration activities during the quarter included:

- completion of resources delineation drilling on the Woorack and Rowack deposit (MIN 5525); and
- greenfields exploration drilling in the Douglas region on the WIM 100 deposit (EL4282).

### Eucla Basin

Activities included greenfield drilling at the Bay of Plenty region on EL4288 and EL4365.

**Figure 1 Eucla Basin and Murray Basin Tenements and Recent Areas of Exploration Activity**



### Project Generation

Iluka is continuing exploration activities (from initial prospecting and tenement acquisition to drilling activity) for mineral sands in several other areas in both Australia and international jurisdictions.

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**APPENDIX 1 - OPERATING MINES – PHYSICAL DATA**  
**3 Months to 31 March 2013**

	<b>Jacinth- Ambrosia</b>	<b>Murray Basin</b>	<b>Western Australia</b>	<b>Australia Total</b>	<b>Virginia</b>	<b>Group Total</b>
<b>Mining</b>						
Overburden Moved bcm	90.7	2,670.8	85.8	2,847.3	0.0	<b>2,847.3</b>
Ore Mined kt	2,413.3	703.8	2,146.0	5,263.1	1,008.9	<b>6,272.0</b>
Ore Grade HM %	7.4	32.6	6.4	10.4	7.7	<b>9.9</b>
VHM Grade %	6.6	27.6	5.5	9.0	6.6	<b>8.6</b>
<b>Concentrating</b>						
HMC Produced kt	155.7	103.2	115.3	374.2	78.0	<b>452.2</b>
VHM Produced kt	137.8	88.7	99.2	325.7	62.9	<b>388.6</b>
VHM in HMC Assemblage %	88.5	85.9	86.0	87.0	80.6	<b>85.9</b>
Zircon	51.0	23.2	11.6	31.2	14.8	<b>28.4</b>
Rutile	6.4	41.7	8.5	16.8	0.0	<b>13.9</b>
Ilmenite - Saleable & Upgradeable	30.7	19.2	62.4	37.3	65.8	<b>42.2</b>
HMC Processed kt	18.0	36.1	137.0	191.1	75.6	<b>266.7</b>
Finished Product <sup>1</sup> kt						
Zircon	22.0	13.3	10.8	46.1	10.0	<b>56.1</b>
Rutile	0.0	16.3	9.5	25.8	0.0	<b>25.8</b>
Ilmenite - Saleable & Upgradeable	5.0	21.1	86.9	113.0	47.9	<b>160.9</b>
Synthetic Rutile Produced kt			29.0	29.0		<b>29.0</b>

An explanation of the Iluka's physical flow information can be obtained from Iluka's Briefing Paper - Iluka Physical Flow Information on the company's website [www.iluka.com](http://www.iluka.com), under Investor Relations, Mineral Sands Briefing Material. The nature of the Iluka operations base means that HMC from various mining locations can be processed at various mineral separation plants.

<sup>1</sup> Finished product includes material from HMC initially processed in prior periods.



## Explanatory Comments on Terminology

**Overburden moved** (bank cubic metres) refers to material moved to enable mining of an ore body.

**Ore mined** (thousands of tonnes) refers to material moved containing heavy mineral ore.

**Ore Grade HM %** refers to percentage of heavy mineral ("HM") found in a deposit. In the case of Murray Basin it excludes grade attributable to low quality, unsaleable ilmenite which is returned to the mine.

**VHM Grade %** refers to percentage of valuable heavy mineral ("VHM") - titanium dioxide (rutile and ilmenite), and zircon found in a deposit.

**Concentrating** refers to the production of heavy mineral concentrate ("HMC") through a wet concentrating process at the mine site, which is then transported for final processing into finished product at one of the company's two Australian mineral processing plants, or the Virginia mineral processing plant.

**HMC produced** refers to heavy mineral concentrate ("HMC"), which includes the valuable heavy mineral concentrate (zircon, rutile, ilmenite) as well as other non valuable heavy minerals (gangue).

**VHM produced** refers to an estimate of valuable heavy mineral in heavy mineral concentrate expected to be processed.

**VHM produced and the VHM assemblage** - provided to enable an indication of the valuable heavy mineral component in HMC.

**HMC processed** provides an indication of material emanating from each mining operation to be processed.

**Finished product** is provided as an indication of the finished production (zircon, rutile, ilmenite – both saleable and upgradeable) attributable to the VHM in HMC production streams from the various mining operations. Finished product levels are subject to recovery factors which can vary. The difference between the VHM produced and finished product reflects the recovery level by operation, as well as processing of finished material/concentrate in inventory. Ultimate finished product production (rutile, ilmenite, zircon) is subject to recovery loss at the processing stage – this may be in the order of 10%.

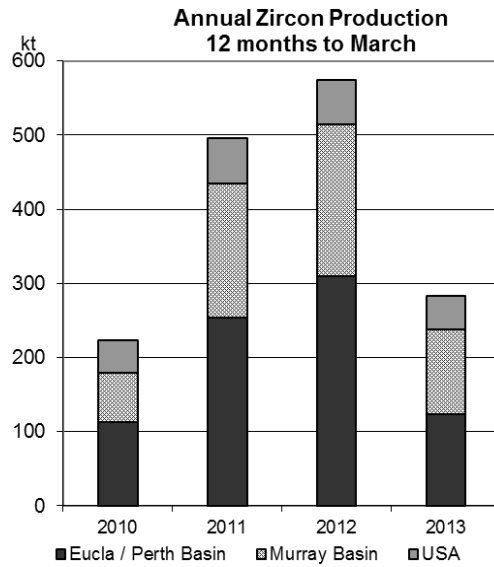
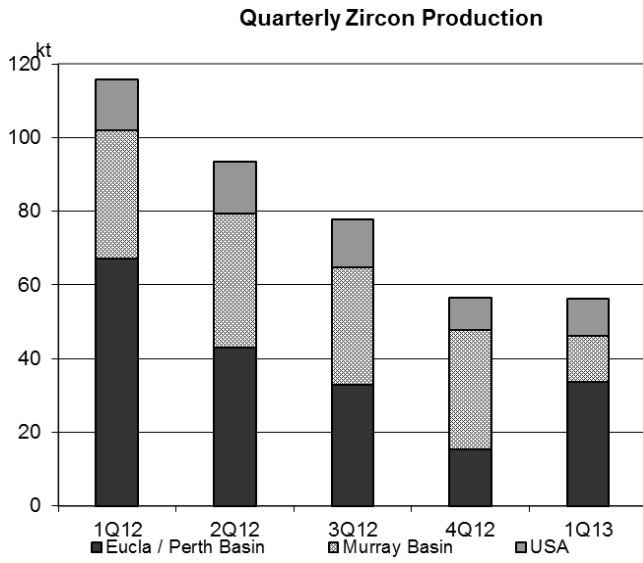
**Ilmenite saleable** is ilmenite produced for sale rather than as a synthetic rutile feedstock.

**Ilmenite upgradeable** is that which is used in the manufacture of synthetic rutile. Typically 1 tonne of upgradeable ilmenite will produce between 0.58 to 0.62 tonnes of SR. Iluka also purchases external ilmenite for its synthetic rutile production process.

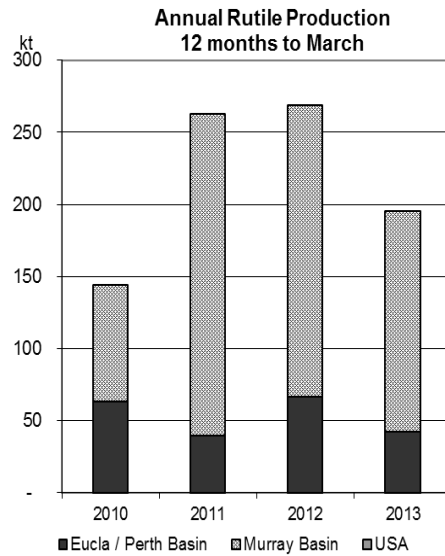
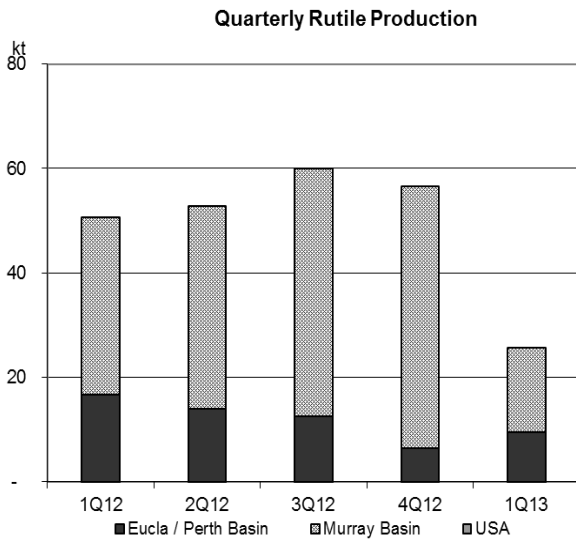
Refer Iluka's website [www.iluka.com](http://www.iluka.com) – Mineral Sands Technical Information for more detailed information on the mineral sands mining and production process.

## APPENDIX 2 – PRODUCTION SUMMARIES

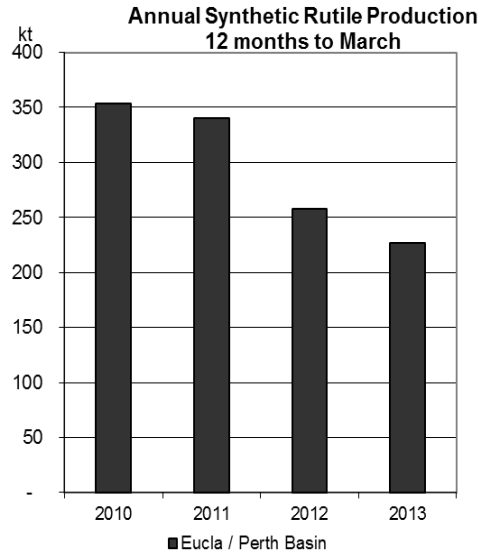
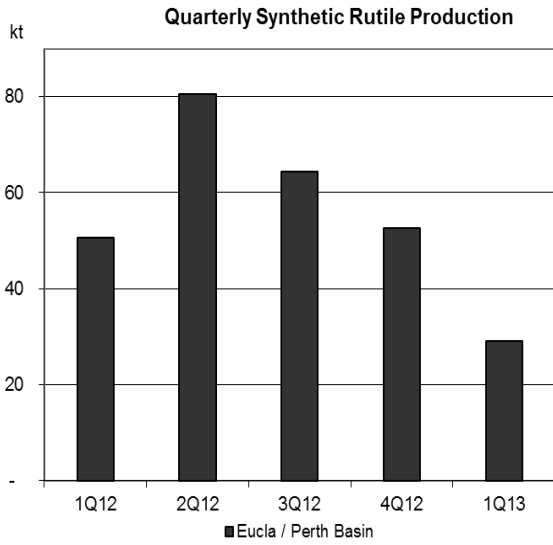
### Zircon



### Rutile



### Synthetic Rutile



### Ilmenite (upgradeable and saleable ilmenite)

