

## Australian Securities Exchange Notice

16 October 2013

# QUARTERLY PRODUCTION REPORT 30 SEPTEMBER 2013

## SUMMARY OF PHYSICAL AND FINANCIAL DATA

	Sep-12 Quarter	Jun-13 Quarter	Sep-13 Quarter	Sep-12 YTD	Sep-13 YTD	Sep-13 YTD vs Sep-12 YTD
	kt	kt	kt	kt	kt	%
<b>Production</b>						
Zircon	77.7	62.4	98.1	286.7	216.6	(24.5)
Rutile	60.0	34.8	44.2	163.6	104.8	(35.9)
Synthetic Rutile	64.4	30.0	-	195.6	59.0	(69.8)
Total Z/R/SR Production	202.1	127.2	142.3	645.9	380.4	(41.1)
Ilmenite	195.4	173.0	134.2	558.3	468.1	(16.2)
Total Mineral Sands Production <sup>1</sup>	397.5	300.2	276.5	1,204.2	848.5	(29.5)
Mineral Sands Revenue A\$ million	224.5	241.8	147.0	887.3	528.7	(40.4)
Average AUD:USD cents	103.8	99.2	91.6	103.5	98.1	(5.2)

## **OVERVIEW**

- Illuka's combined production of zircon, rutile and synthetic rutile (Z/R/SR) in the September quarter was 142.3 thousand tonnes, 11.9 per cent higher than June 2013 quarter production of 127.2 thousand tonnes. This mainly reflects the company's decision to increase the processing of zircon-rich concentrate from Jacinth-Ambrosia in the context of lower levels of finished goods available and strengthening of zircon demand in the first half. Iluka produced no synthetic rutile in the September quarter, as previously foreshadowed and in the context of its production curtailment measures.
- Combined Z/R/SR production on a year-to-date basis was 380.4 thousand tonnes, 41.1 per cent lower than the 645.9 thousand tonnes recorded for the same period in 2012. This lower production reflects lluka's ability to flex production downwards in response to lower demand at the low point of the business cycle, both to facilitate a progressive draw down of finished goods inventory, as well as to reduce total operating costs.
- Mineral sands revenue for the three months to 30 September 2013 was \$147.0 million. Revenue on a
  year-to-date basis was \$528.7 million, compared with \$887.3 million in the same period in 2012, a
  40.4 per cent decline, mainly reflecting lower received prices period on period, as conveyed in the half
  year results.

<sup>&</sup>lt;sup>1</sup> Total mineral sands production includes ilmenite available for upgrading to synthetic rutile and ilmenite that is available for sale. For both commercial reasons and given the company's increased flexibility in utilising 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 is more apparent with the reporting of sales volumes in the June and December quarterly reports.

• The average Australian/US dollar exchange rate for the quarter was 91.6 cents, down from 99.2 cents in the June quarter. The majority of Iluka's revenue is denominated in US dollars. A lower Australian/US dollar exchange rate is favourable for revenues translated into the reporting currency.

#### **MINERAL MARKET CONDITIONS**

After a first half recovery in demand for zircon in a number of markets, especially China, the third quarter saw more subdued market conditions in most markets relative to their robust first half run rate, reflecting both normally quarterly variations and continuing fragile business confidence levels, with the latter still impacted by prevailing and new economic and political uncertainties. This was reflected in a more cautious approach to ordering by customers during the quarter.

Demand in the United States, which is mainly manufacturing related, remained on the whole robust, while demand in other regions - while higher than 2012 - is still volatile reflecting the aforementioned business confidence levels and fragile consumer sentiment.

Iluka previously advised that it did not expect the typical second half zircon sales weighting to be evident in 2013 sales volumes and this has now been confirmed, with lower demand in the third quarter unlikely to be offset in full by stronger sales volumes in the fourth quarter.

As the company has previously indicated, the pre-conditions for a recovery in pigment, and in turn high grade feedstock demand, are becoming evident. This is reflected in pigment producer commentary in relation to the reduction of pigment inventories to more usual levels and the intention, over time, to move back to higher yields at pigment plants and pursue higher prices.

However, seasonal factors in the northern hemisphere mean that the industry is entering its typical lower demand period and it remains Iluka's expectation that clear signs of recovery in high grade feedstock demand may not become evident until late 2013 or into 2014.

Iluka's expectation is supported by increased customer inquiry levels regarding future supply, especially for 2014, which are at levels not seen for over 12 months.

Iluka's full year sales expectations for high grade feedstock volumes are subject to further discussions with customers but remain at this stage as previously indicated, which is roughly in line with annual production of rutile and synthetic rutile of approximately 200 thousand tonnes combined.

While year-to-date rutile prices to the end of September are in line with the commentary provided by Iluka at the half, the current pricing environment has weakened, based on some producers unable or unwilling to await demand recovery, to a level approximately 20 per cent below the first half rutile weighted average price level of approximately US\$1,200 per tonne.

## **PRODUCTION**

Lower production levels are in line with Iluka's previously announced operational adjustments, which reflect a major operational response to a cyclical low in market demand and the company's objective to draw down finished goods inventory, while preserving capacity to respond quickly to market demand recovery. On an annualised run rate, production levels to the end of September reflect an approximate 60 per cent utilisation rate relative to typical "mid cycle" production settings across the main products of zircon, rutile and synthetic rutile.

Zircon production on a year-to-date basis was 216.6 thousand tonnes, which reflects the processing of lower levels of heavy mineral concentrate, principally from the Jacinth-Ambrosia operation in South Australia. Rutile production was also constrained to 104.8 thousand tonnes year-to-date, mainly reflecting lower utilisation rates and the build of concentrate in the Murray Basin, Victoria. All of Iluka's four synthetic rutile kilns remained idle and there was no production of synthetic rutile in the September quarter following the idling of the last remaining operational kiln in the second quarter of 2013. This capacity will be reactivated as high grade titanium dioxide demand recovers. Ilmenite production year-to-date was 468.1 thousand tonnes, with some of this material available for sale and some held in inventory as a feed source for the synthetic rutile kilns when reactivated.

At the Jacinth-Ambrosia mining operation, normal mining operations continued during the September quarter. During the quarter, heavy mineral concentrate shipping to the company's two Australian mineral separation plants at Narngulu, Western Australia and Hamilton, Victoria increased in response to a lower level of finished goods available, and will continue to be adjusted to meet demand whilst minimising cash expenditure. During the quarter approximately 120 thousand tonnes of Jacinth-Ambrosia concentrate was shipped. Over the same period approximately 100 thousand tonnes was processed in Western Australia and 25 thousand tonnes in Victoria.

At the Murray Basin operations, mining and processing operated continuously across the quarter, with the Hamilton mineral separation plant product mix adjusted toward higher zircon, lower rutile production by utilising an approximate 20 per cent blend of Jacinth-Ambrosia heavy mineral concentrate. In terms of forthcoming operational settings, a number of arrangements are likely which may entail continued lower utilisation rates for the mineral separation plant to provide a steady production rate and production continuity, in light of market demand recovery, while also allowing inventories to be worked down.

In Western Australia, the Tutunup South mine remains idled, as does the Eneabba mine in the Mid West.

At Iluka's Virginia operations in the United States mining continues in a lower grade part of the deposit. During the quarter, the Concord mining unit was successfully relocated to a new area. Due to mining being in the lower grade part of the deposit currently as part of the normal mining schedule, heavy mineral concentrate production was lower than capacity at the mineral separation plant.

Appendix 1 shows physical movements on a year-to-date basis. In relation to heavy mineral concentrate produced to that processed the year-to-date figures indicate a concentrate build of approximately 380 thousand tones. In the September quarter, concentrate produced and processed was more aligned with approximately 375 thousand tonnes of concentrate produced and approximately 310 thousand tonnes processed.

#### **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 in 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 either of the Australian mineral processing facilities. Appendix 1 provides details of the physical flows from mining operations to mineral processing facilities.

## **Physical Production**

	Sep-12 Quarter	Jun-13 Quarter	Sep-13 Quarter	Sep-12 YTD	Sep-13 YTD	Sep-13 YTD vs Sep-12 YTD
	kt	kt	kt	kt	kt	<u> </u>
Zircon <sup>1</sup>	KL	KL	KI	KL	KI	70
Eucla/Perth Basin (SA/WA)	32.9	36.9	65.2	143.0	134.9	(5.7)
Murray Basin (VIC)	31.9	17.2	21.4	103.2	51.9	(49.7)
Australia	64.8	54.1	86.6	246.2	186.8	(24.1)
Virginia (USA)	12.9	8.3	11.5	40.5	29.8	(26.4)
Total Zircon Production	77.7	62.4	98.1	286.7	216.6	(24.5)
Rutile						
Eucla/Perth Basin (SA/WA)	12.6	7.3	9.1	43.5	25.9	(40.5)
Murray Basin (VIC)	47.4	27.5	35.1	120.1	78.9	(34.3)
Total Rutile Production	60.0	34.8	44.2	163.6	104.8	(35.9)
Synthetic Rutile (WA)	64.4	30.0	-	195.6	59.0	(69.8)
TOTAL Z/R/SR PRODUCTION	202.1	127.2	142.3	645.9	380.4	(41.1)
<u>Ilmenite</u>						
Eucla/Perth Basin (SA/WA)	64.5	61.8	32.1	237.2	185.8	(21.7)
Murray Basin (VIC)	68.9	66.5	44.4	151.8	132.0	(13.0)
Australia	133.4	128.3	76.5	389.0	317.8	(18.3)
Virginia (USA)	62.0	44.7	57.7	169.3	150.3	(11.2)
Total Ilmenite	195.4	173.0	134.2	558.3	468.1	(16.2)
TOTAL MINERAL SANDS PRODUCTION	397.5	300.2	276.5	1,204.2	848.5	(29.5)

<sup>&</sup>lt;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 Sep-12	12 mths to Sep-13	12 mths Sep-13 vs 12 mths Sep-12
	kt	kt	%
<u>Zircon</u>			
Eucla/Perth Basin (SA/WA)	215.8	150.0	(30.5)
Murray Basin (VIC)	162.4	84.3	(48.1)
Australia	378.2	234.3	(38.0)
Virginia (USA)	57.0	38.8	(31.9)
Total Zircon Production	435.2	273.1	(37.2)
Rutile			
Eucla/Perth Basin (SA/WA)	59.7	32.5	(45.6)
Murray Basin (VIC)	169.8	129.2	(23.9)
Total Rutile Production	229.5	161.7	(29.5)
Synthetic Rutile (WA)	264.3	111.7	(57.7)
TOTAL Z/R/SR PRODUCTION	929.0	546.5	(41.2)
Ilmenite			
Eucla/Perth Basin (SA/WA)	318.8	239.2	(25.0)
Murray Basin (VIC)	173.5	149.0	(14.1)
Australia	492.3	388.2	(21.1)
Virginia (USA)	238.3	195.7	(17.9)
Total Ilmenite	730.6	583.9	(20.1)
TOTAL MINERAL SANDS PRODUCTION	1,659.6	1,130.4	(31.9)

## **PLANNED NEW PRODUCTION**

## **Balranald, New South Wales**

Balranald and Nepean are two rutile-rich mineral sands deposits in the northern Murray Basin, New South Wales. The Balranald development, if approved, would provide the potential for approximately eight years of rutile, zircon and associated ilmenite fractions.

Subsequent to the completion of the pre-feasibility study in the June quarter, approvals and funding were provided by the Board to commence a definitive feasibility study. This study is a two part exercise that will initially confirm hydrogeological models through an extensive pilot programme, followed by the detailed engineering required for project execution. Test work to assess if the ilmenite from Balranald is suitable for downstream processing occurred during the quarter. Iluka has made progress on all regulatory approvals.

### Cataby, Western Australia

The Cataby mineral sands deposit, located north of Perth, is a chloride ilmenite deposit that is also expected to produce material levels of zircon during its initial years.

The pre-feasibility study on the deposit was completed, as planned, in mid-2013. Subsequent to the completion of the pre-feasibility study, approvals and funding were provided by the Board to commence a definitive feasibility study. This study is intended to be completed in 2014.

## 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 represents one of two potential extensions to the economic life of Iluka's current United States' mineral sands operation and 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 October 2012. Detailed engineering was completed for the concentrator and mine, and construction bids were received from contractors in September 2013. Operating permits were advanced and investment incentives secured from the Commonwealth of Virginia. The project remains on-track for a development decision expected later in 2013.

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

The Aurelian Springs project involves a feasibility study for the potential development of a mineral sand deposit located in Halifax County, North Carolina, approximately 90 kilometres south of Iluka's mineral separation plant at Stony Creek, Virginia. The evaluation is based currently on the relocation of the Concord mining unit and concentrator plant to Aurelian Springs in 2015. The mine is capable of producing chloride ilmenite and an associated zircon production stream, and would extend the economic life of Iluka's current United States' mineral sands operation.

During the third quarter of 2013, the pre-feasibility study was completed in accordance to plan, and the project has progressed to the definitive feasibility stage. One key outcome of the pre-feasibility study has been confirmation that the ilmenite produced is suitable not only for use in the chloride pigment manufacturing process, but also the sulphate pigment manufacturing process, increasing the marketability of the product significantly. The definitive feasibility study work includes the acquisition of the remaining land and mineral, securing of permits, detailing a work plan for relocation of the mine and concentrator, and developing a detailed cost estimate and time schedule.

## **Eucla Basin, South Australia**

Iluka has undertaken a scoping study on the Sonoran, Atacama and Typhoon satellite deposits in close proximity 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 pre-feasibility study is underway and on schedule for completion in 2014, for the potential development of one or more of these deposits. Innovative mining and processing designs for these deposits are included in the scope of the pre-feasibility study.

### **EXPLORATION**

## **Eucla Basin, Murray Basin and Canning Basin**

Exploration activity during the quarter included greenfields drilling in three domains across Australia. Greenfields exploration in the Eucla Basin included:

- completion of drilling in the Yumburra region on EL 4288. EL 4546, EL 5099 and EL 5100; and
- commencement of drilling on North Immarna on EL 4344 and EL 4345.

Exploration activity in the Murray Basin included greenfields drilling at several locations in the western region of the basin:

- completion of drilling on Florieton on EL 5251, Mannum on EL 5265, and Southern Mallee on EL 4922;
   and
- commencement of drilling on Delamerian Project on EL 4452, EL 5068, EL 5069 and EL 5182.

Greenfields drilling in the Canning Basin in NW Western Australia focussed on two areas:

- South East of Port Headland on E 4504058 and E 4504059; and
- to the east of Broome on E 402202 and E 402204.

Figure 1 Eucla Basin Tenements and Recent Areas of Exploration Activity





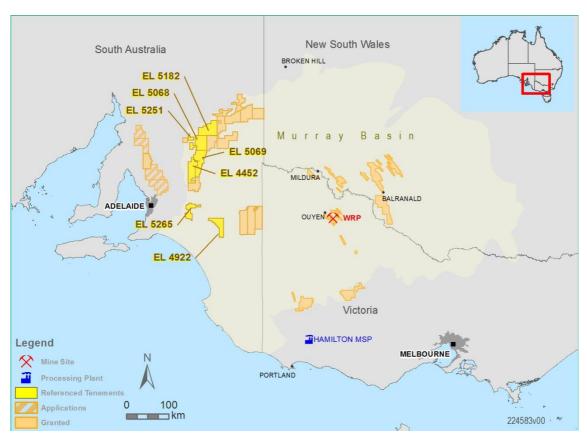
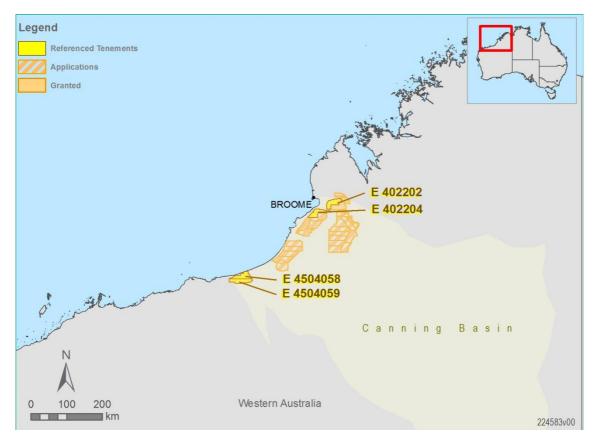


Figure 3 Canning Basin Tenements and Recent Areas of Exploration Activity



## **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 at early stages in numerous international jurisdictions.

#### Sri Lanka

As Iluka advised in its ASX announcement of 5 August 2013 and subsequently on 3 October 2013, the company has acquired and been granted tenements containing a large mineral sand resource in accordance with the JORC 2012 reporting requirements. The heavy mineral resource represents a 46 per cent increase in Iluka's total resource inventory at the end of 2012.

Iluka intends to commence feasibility work shortly in relation to the potential development of these deposits and is progressing the appointment of a project development team, as well as continuing engagement with Sri Lankan officials to secure all necessary approvals.

Iluka also intends to undertake further exploration and feasibility work, over time, on all its Sri Lankan tenements.

## Investment market and media inquiries:

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APPENDIX 1 - OPERATING MINES - PHYSICAL DATA 9 Months to 30 September 2013

	Jacinth- Ambrosia	Murray Basin	Western Australia	Australia Total	Virginia	Group Total
Mining						
Overburden Moved bcm	279.4	8,362.6	236.4	8,878.4	0.0	8,878.4
Ore Mined kt	6,799.1	2,263.4	2,600.9	11,663.4	3,658.8	15,322.2
Ore Grade HM %	9.1	26.9	7.3	12.2	6.7	10.9
VHM Grade %	8.2	21.6	6.4	10.4	5.7	9.3
Concentrating						
HMC Produced kt	550.1	298.8	163.2	1,012.1	243.0	1,255.1
VHM Produced kt	491.6	259.5	139.2	890.3	194.1	1,084.4
VHM in HMC Assemblage %	89.4	86.8	85.3	88.0	79.9	86.4
Zircon	53.2	24.5	12.4	38.1	14.5	33.6
Rutile	6.7	41.9	6.1	17.0	0.0	13.7
Ilmenite	29.0	18.8	62.6	31.4	65.4	38.0
HMC Processed kt	163.9	193.9	254.5	612.3	232.6	844.9
Finished Product <sup>1</sup> kt						
Zircon	104.6	51.9	30.3	186.8	29.8	216.6
Rutile	8.9	78.9	17.0	104.8	0.0	104.8
Ilmenite	43.1	132.0	142.7	317.8	150.3	468.1
Synthetic Rutile Produced kt			59.0	59.0		59.0

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 <a href="www.iluka.com">www.iluka.com</a>, 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.

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<sup>&</sup>lt;sup>1</sup> Finished product includes material from heavy mineral concentrate (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 some 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 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, and zircon) is subject to recovery loss at the processing stage – this may be in the order of 10 per cent.

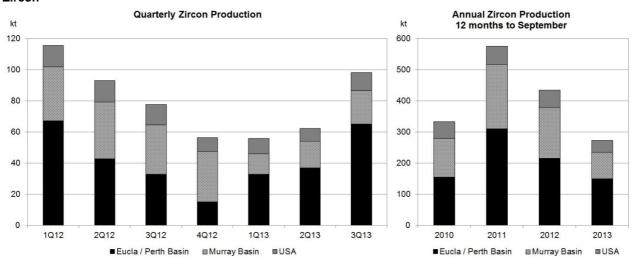
Ilmenite is produced for sale or as a feedstock for synthetic rutile production.

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.

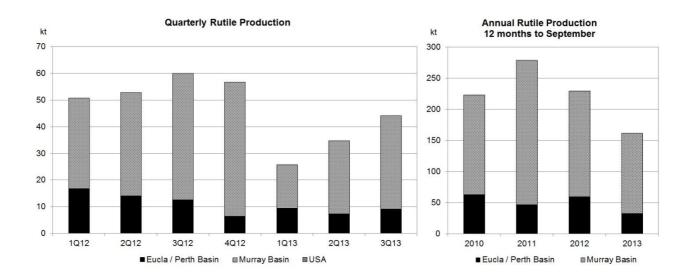
Refer Iluka's website <a href="www.iluka.com">www.iluka.com</a> – Mineral Sands Technical Information for more detailed information on the mineral sands mining and production process.

## **APPENDIX 2 - PRODUCTION SUMMARIES**

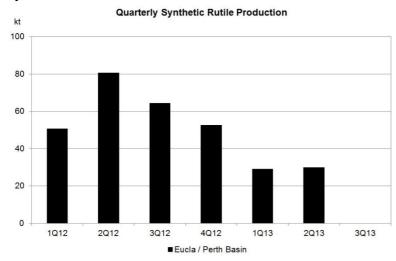
### Zircon

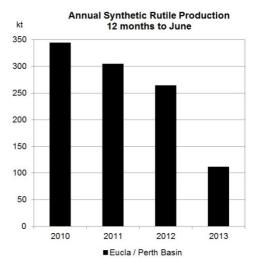


#### Rutile



## **Synthetic Rutile**





## Ilmenite

