



ILUKA

# Australian Securities Exchange Notice

15 January 2015

## QUARTERLY PRODUCTION REPORT 31 DECEMBER 2014

### OVERVIEW

- Annual production of Z/R/SR was 535 thousand tonnes, compared with 471 thousand tonnes in 2013. Higher production reflects an increase in zircon and rutile production, offset by no production of synthetic rutile during the year, associated with the idling of all kilns.
- Sales volumes of Z/R/SR increased 5 per cent year-on-year to 616 thousand tonnes (2013: 584 thousand tonnes). The sales outcome is consistent with Iluka's guidance statement in February 2014 (Refer ASX Release, Key Physical and Financial Parameters 2014) that it expected total Z/R/SR sales may exceed production and be above 2013 sales. The sales volume mix reflects areas of softer global demand for zircon year-on-year, and recovering demand for high grade titanium dioxide feedstocks.
- Zircon sales were marginally lower than 2013 levels, at 352 thousand tonnes (2013: 370 thousand tonnes) and in line with 2014 production levels (358 thousand tonnes). This mainly reflects weak demand in Europe, the Middle East and India.
- Rutile sales (which include a slightly lower titanium dioxide content HyTi product) were 182 thousand tonnes (2013: 168 thousand tonnes) and synthetic rutile sales were 82 thousand tonnes (2013: 46 thousand tonnes).
- Iluka's sales of ilmenite in 2014 were 317 thousand tonnes (2013: 338 thousand tonnes). Lower sales volume mainly reflects weaker demand for ilmenite, produced predominantly from Iluka's Murray Basin operation, associated with reduced utilisation of sulphate pigment plant capacity in China.
- Mineral sands sales revenue for the 12 months to 31 December 2014 was \$725 million (2013: \$763 million). This includes \$90 million associated with ilmenite and by-product revenues (2013: \$77 million). While revenue derived from chloride ilmenite sales was higher year-on-year, by-product revenue was similar.
- A second half weighted sales profile (refer comments on page 3) was reflected in higher second half free cash flow of ~\$133 million and full year estimated free cash flow of ~\$197 million.
- Revenue per tonne of Z/R/SR sold during 2014 declined by 12 per cent to \$1,030, compared with \$1,173 in 2013, mainly as a result of a moderation in high grade titanium dioxide prices, and some sales mix factors (higher sales of HyTi and standard grade zircon but lower premium zircon sales). Mineral sands revenue excludes the contribution from Mining Area C iron ore royalty.
- Unit cash cost of Z/R/SR produced, excluding by-product costs, was \$668/tonne, compared with \$757/tonne in 2013. Unit cash costs of Z/R/SR produced, including by-product costs, were \$714/tonne (2013: \$798/tonne).
- Cash production costs in 2014 were \$382 million, only marginally higher than 2013 (\$376 million) despite 15 per cent higher production and relative to initial year guidance of ~\$430 million. Production costs include costs associated with production of ilmenite and by-product streams, including iron oxide. In 2014, the costs associated with these by-products was \$25 million; lower than the guided ~\$65 million. Lower Murray Basin ilmenite concentrate sales reduced the associated transportation costs and iron oxide costs were reduced due to lower sales volumes given the lower prevailing iron ore price.
- Other cash costs and idle and restructure capacity, rehabilitation and holding costs have been guided as part of Iluka's February 2014 ASX Release referred to above.
- The average AUD:USD exchange rate for the year was 90.3 cents compared with 96.8 cents in 2013.

For personal use only

## SUMMARY OF PHYSICAL AND FINANCIAL DATA

	Dec-13 Quarter	Dec-14 Quarter	12 mth to Dec-13	12 mth to Dec-14	12 mth Dec-14 vs 12 mth Dec-13
<b>Production</b>	kt	kt	kt	kt	%
Zircon	68.5	84.2	285.1	357.6	25.4
Rutile	22.2	58.0	127.0	177.2	39.5
Synthetic Rutile	-	-	59.0	-	n/a
<b>Total Z/R/SR Production</b>	<b>90.7</b>	<b>142.2</b>	<b>471.1</b>	<b>534.8</b>	<b>13.5</b>
Ilmenite	116.4	64.8	584.5	365.4	(37.5)
<b>Total Mineral Sands Production<sup>1</sup></b>	<b>207.1</b>	<b>207.0</b>	<b>1,055.6</b>	<b>900.2</b>	<b>(14.7)</b>
	6 mth to Jun-14	6 mth to Dec-14	12 mth to Dec-13	12 mth to Dec-14	12 mth Dec-14 vs 12 mth Dec-13
<b>Sales</b>	kt	kt	kt	kt	%
Zircon	146.3	205.9	370.2	352.2	(4.9)
Rutile	95.5	86.5	168.0	182.0	8.3
Synthetic Rutile	35.3	46.7	46.2	82.0	77.5
<b>Total Z/R/SR Sales</b>	<b>277.1</b>	<b>339.1</b>	<b>584.4</b>	<b>616.2</b>	<b>5.4</b>
Ilmenite	221.8	94.8	337.5	316.6	(6.2)
<b>Total Mineral Sands Sales</b>	<b>498.9</b>	<b>433.9</b>	<b>921.9</b>	<b>932.8</b>	<b>1.2</b>
	Dec-13 Quarter	Dec-14 Quarter	12 mth to Dec-13	12 mth to Dec-14	12 mth Dec-14 vs 12 mth Dec-13
Z/R/SR Revenue A\$ million	217.4	219.1	685.8	634.8	(7.4)
Ilmenite and Other Revenue <sup>2</sup> A\$ million	16.9	14.8	77.2	90.1	16.7
<b>Mineral Sands Revenue A\$ million</b>	<b>234.3</b>	<b>233.9</b>	<b>763.0</b>	<b>724.9</b>	<b>(5.0)</b>
<b>Weighted Average Price US\$/tonne FOB</b>					
Zircon			1,150	1,033	(10.2)
Rutile			1,069	777	(27.3)
Synthetic rutile			1,150	750	(34.8)
<b>Cash Costs of Production - A\$ million</b>			<b>376.1</b>	<b>381.9</b>	<b>1.5</b>
<b>Cash Prod Costs per Tonne of Z/R/SR Produced - A\$</b>			<b>798</b>	<b>714</b>	<b>(10.5)</b>
<b>Cost of Goods Sold per Tonne of Z/R/SR - A\$</b>			<b>890</b>	<b>862</b>	<b>(3.1)</b>
<b>Revenue per Tonne of Z/R/SR Sold - A\$</b>	<b>1,127</b>	<b>1,044</b>	<b>1,173</b>	<b>1,030</b>	<b>(12.2)</b>
<b>Average AUD:USD cents</b>	<b>92.9</b>	<b>85.7</b>	<b>96.8</b>	<b>90.3</b>	<b>(6.7)</b>

<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 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 apparent in the reporting of ilmenite sales volumes which occurs in the June and December quarterly reports and can be seen above. Clearly, there is usually a lag between production of ilmenite and either its sale or utilisation as a synthetic rutile feedsource.

<sup>2</sup> Ilmenite and other revenues (typically minor) include revenues derived from other materials not included in production volumes, including activated carbon products and iron concentrate. Iluka receives a royalty payment from its Mining Area C iron ore royalty. This is not reported as part of quarterly reports but is disclosed in the financial statements.

## MINERAL SANDS MARKET AND SALES VOLUME COMMENTARY

The company has previously conveyed details of variable demand conditions across markets for zircon in 2014, and indicators for a potential recovery in demand for high grade titanium dioxide feedstocks. This is reflected in full year sales volumes, which show slightly lower overall zircon sales volumes and an increase in rutile and synthetic rutile sales volumes relative to 2013 levels.

Overall Z/R/SR sales volumes in 2014 (616 thousand tonnes) were higher than 2013 (584 thousand tonnes). Second half 2014 Z/R/SR sales of 339 thousand tonnes were higher than in any of the three previous half year periods - first half 2014 (277 thousand tonnes), second half 2013 (297 thousand tonnes) and first half 2013 (287 thousand tonnes).

Zircon sales in 2014 were: second half weighted (206 thousand tonnes) compared with the first half sales of (146 thousand tonnes); higher than the second half of 2013 of 159 thousand tonnes; and in line with the first half of 2013, a period characterised by strong buying ahead of a price rise.

The trends are displayed in the following table.

Sales Volume kt		1 <sup>st</sup> Half	2 <sup>nd</sup> Half	Total
		kt	kt	kt
Zircon	2013	210.9	159.3	370.2
	2014	146.3	205.9	352.2
Rutile / synthetic rutile	2013	76.3	137.9	214.2
	2014	130.8	133.2	264.0
<b>Total Z/R/SR</b>	<b>2013</b>	<b>287.2</b>	<b>297.2</b>	<b>584.4</b>
<b>Total Z/R/SR</b>	<b>2014</b>	<b>277.1</b>	<b>339.1</b>	<b>616.2</b>

Price dynamics have also been conveyed previously, and reflect a reduction in high grade titanium dioxide prices, mainly in the first part of 2014 and with stable weighted average zircon prices for most of 2014. Product mix impacts, including the sale of a slightly lower titanium dioxide content product, HyTi, and a higher proportion of sales of standard grade zircon have been associated with a minor reduction in the weighted average received price in the latter part of the year for both rutile products and zircon. These variations, relative to previously advised price outcomes are not material. The weighted average price outcomes for 2014 compared with 2013 are shown in the table on page 2.

### Zircon

Iluka's zircon sales in 2014 were, as previously advised, second half weighted, with a progressive increase in overall sales each quarter. Total zircon sales for Iluka in 2014 were marginally lower than in 2013 and this reflects, predominantly, softer demand in Europe, Middle East and Indian markets. In the case of Europe, continuing fragility in business conditions and export markets, plus the depreciation of the Euro relative to the US dollar (which translated into effective higher raw material prices) meant that European zircon sales softened again in the fourth quarter. Full year European sales also reflected Iluka's decision to step away from some potential business at the beginning of the year (as advised previously) and were materially lower than the outcome achieved in 2013, itself a weak year in terms of zircon demand in this market. As has been referred to previously, North America and China were the most robust markets. Sales into North America were similar to 2013, reflecting firm demand in industrial and manufacturing markets. Iluka's sales into China were marginally higher in 2014 compared to 2013, despite some softening in the ceramics sector in the latter part of the year associated with property market factors and tile manufacturers idling plants earlier than usual. This is expected to be translated into a slow start for zircon sales in 2015, as is often the case prior to Chinese New Year. Demand recovery in the zirconium chemical sector was evident in the second half.

Iluka's sales into Asian markets (ex-China), were variable and generally subdued, although sales levels showed an improvement from those achieved in 2013. As indicated above, while weighted average received zircon prices lowered marginally in the fourth quarter, this reflected product mix characteristics.

## Titanium Dioxide

The conditions for demand recovery in high grade feedstock markets which the company has referenced throughout 2014 played out in a number of ways. Overall sales volumes of high grade feedstocks (rutile and synthetic rutile) were higher than in 2013 and substantive progress was made in relation to commercial arrangements necessary for a restart of Iluka's largest synthetic rutile kiln in 2015. In the case of rutile, fourth quarter volumes stepped up from third quarter levels, as the company suggested they would due to the timing of scheduled bulk shipments. Iluka also built inventory of both finished rutile products as well as concentrate in the Murray Basin, in advance of the cessation of mining activities at Woorack, Rownack, Pirro in the first quarter of 2015. This inventory of finished product and concentrate will be utilised in the period leading up to the next planned mining operation in the Murray Basin, the Balranald deposit.

## MINERAL SANDS PRODUCTION

At the company's two Australian mines operating through 2014, Jacinth-Ambrosia in South Australia and Woorack, Rownack and Pirro (WRP) in Victoria, mining operations continued at full utilisation rates. These rates enabled optimum unit cash cost outcomes for the production of heavy mineral concentrate (HMC), which in the case of WRP has entailed a build of both finished product and HMC, to be drawn down following the completion of planned mining in the first half of 2015 and before the commencement of mining at the next planned mine development. During the quarter a higher than forecast ore grade at WRP resulted in additional HMC production and stock build, increasing the volume expected to be available for future drawdown and conversion to finished products, including rutile.

Iluka's mining operation in Western Australia, Tutunup South, remained idled associated with the idling of all synthetic rutile kilns in the State, as the company has previously advised. Activities are underway to prepare for a possible restart of mining at Tutunup South in February 2015 to produce and stockpile ilmenite in advance of a kiln restart which will be subject to the finalisation of appropriate commercial arrangements.

In Virginia mining continued at Brink, with mining at Concord having been idled in April as planned. The mineral separation plant continued to be operated at a reduced capacity, in line with the plan to draw down finished goods inventory. As the company indicated in an ASX Release on 12 December 2014, given the inability to conclude appropriate commercial arrangements to underpin potential new mine developments in the United States, mining operations in the United States under this situation are planned to cease during 2015.

Appendix 1 shows physical movements on a year-to-date basis, and compared to 2013. In relation to heavy mineral concentrate (HMC) produced and that processed, the figures indicate an HMC build of 337 thousand tonnes, mainly in the Murray Basin (254 thousand tonnes), in line with company's intention to process this material following completion of current mining operations at WRP. HMC stocks at Jacinth-Ambrosia also increased over 2014 (by 91 thousand tonnes) due to the Narngulu mineral separation plant continuing to operate on a reduced roster (about 50 per cent of full capacity). The Hamilton mineral separation plant operated at ~75 per cent of capacity for the full year, and trialled an increased Jacinth-Ambrosia feed blend in the second half of the year.

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 6. 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.

## Physical Production

	Dec-13 Quarter	Mar-14 Quarter	Jun-14 Quarter	Sep-14 Quarter	Dec-14 Quarter	Dec-14 Qtr vs Sep 14 Qtr	Dec-14 Qtr vs Dec 13 Qtr
	kt	kt	kt	kt	kt	%	%
<b>Zircon<sup>1</sup></b>							
Eucla/Perth Basin (SAWA)	50.8	54.4	65.4	71.8	47.9	(33.3)	5.7
Murray Basin (VIC)	7.9	15.9	22.6	22.3	32.2	44.4	307.6
<b>Australia</b>	<b>58.7</b>	<b>70.3</b>	<b>88.0</b>	<b>94.1</b>	<b>80.1</b>	<b>(14.9)</b>	<b>36.5</b>
<b>Virginia (USA)</b>	<b>9.8</b>	<b>7.5</b>	<b>8.2</b>	<b>5.3</b>	<b>4.1</b>	<b>(22.6)</b>	<b>(58.2)</b>
<b>Total Zircon Production</b>	<b>68.5</b>	<b>77.8</b>	<b>96.2</b>	<b>99.4</b>	<b>84.2</b>	<b>(15.3)</b>	<b>22.9</b>
<b>Rutile</b>							
Eucla/Perth Basin (SAWA)	7.4	5.5	8.4	8.5	7.3	(14.1)	1.4
Murray Basin (VIC)	14.8	27.7	36.5	32.6	50.7	55.5	242.6
<b>Total Rutile Production</b>	<b>22.2</b>	<b>33.2</b>	<b>44.9</b>	<b>41.1</b>	<b>58.0</b>	<b>41.1</b>	<b>161.3</b>
<b>Synthetic Rutile (WA)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>n/a</b>	<b>n/a</b>
<b>TOTAL Z/R/SR PRODUCTION</b>	<b>90.7</b>	<b>111.0</b>	<b>141.1</b>	<b>140.5</b>	<b>142.2</b>	<b>1.2</b>	<b>56.8</b>
<b>Ilmenite</b>							
Eucla/Perth Basin (SAWA)	25.4	17.8	27.4	33.8	23.6	(30.2)	(7.1)
Murray Basin (VIC)	51.7	63.9	58.6	20.9	24.6	17.7	(52.4)
<b>Australia</b>	<b>77.1</b>	<b>81.7</b>	<b>86.0</b>	<b>54.7</b>	<b>48.2</b>	<b>(11.9)</b>	<b>(37.5)</b>
<b>Virginia (USA)</b>	<b>39.3</b>	<b>28.5</b>	<b>30.6</b>	<b>19.1</b>	<b>16.6</b>	<b>(13.1)</b>	<b>(57.8)</b>
<b>Total Ilmenite</b>	<b>116.4</b>	<b>110.2</b>	<b>116.6</b>	<b>73.8</b>	<b>64.8</b>	<b>(12.2)</b>	<b>(44.3)</b>
<b>TOTAL MINERAL SANDS PRODUCTION</b>	<b>207.1</b>	<b>221.2</b>	<b>257.7</b>	<b>214.3</b>	<b>207.0</b>	<b>(3.4)</b>	<b>0.0</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 Dec-13	12 mths to Dec-14	12 mths Dec-14 vs 12 mths Dec-13
	kt	kt	%
<b>Zircon</b>			
Eucla/Perth Basin (SAWA)	185.7	239.5	29.0
Murray Basin (VIC)	59.8	93.0	55.5
<b>Australia</b>	<b>245.5</b>	<b>332.5</b>	<b>35.4</b>
<b>Virginia (USA)</b>	<b>39.6</b>	<b>25.1</b>	<b>(36.6)</b>
<b>Total Zircon Production</b>	<b>285.1</b>	<b>357.6</b>	<b>25.4</b>
<b>Rutile</b>			
Eucla/Perth Basin (SAWA)	33.3	29.7	(10.8)
Murray Basin (VIC)	93.7	147.5	57.4
<b>Total Rutile Production</b>	<b>127.0</b>	<b>177.2</b>	<b>39.5</b>
<b>Synthetic Rutile (WA)</b>	<b>59.0</b>	<b>-</b>	<b>n/a</b>
<b>TOTAL Z/R/SR PRODUCTION</b>	<b>471.1</b>	<b>534.8</b>	<b>13.5</b>
<b>Ilmenite</b>			
Eucla/Perth Basin (SAWA)	211.2	102.6	(51.4)
Murray Basin (VIC)	183.7	168.0	(8.5)
<b>Australia</b>	<b>394.9</b>	<b>270.6</b>	<b>(31.5)</b>
<b>Virginia (USA)</b>	<b>189.6</b>	<b>94.8</b>	<b>(50.0)</b>
<b>Total Ilmenite</b>	<b>584.5</b>	<b>365.4</b>	<b>(37.5)</b>
<b>TOTAL MINERAL SANDS PRODUCTION</b>	<b>1,055.6</b>	<b>900.2</b>	<b>(14.7)</b>

## 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, will provide the potential for approximately eight years of substantial rutile, zircon and associated ilmenite production. It is proposed that the Balranald development will follow, after an interval, the completion of mining at Woornack, Rownack and Pirro and utilise the existing Hamilton mineral separation plant.

Activities associated with the definitive feasibility study continued through 2014, including an extensive hydrogeological pilot programme, and mining simulations activities which have refined pre-feasibility assumptions. When concluded they will be followed by the detailed engineering required for project execution. Initial test work to better assess the proportion of the ilmenite from Balranald suitable for various downstream processing technologies supports the preliminary assessment and will continue during the next quarter. Iluka completed environmental impact assessments for the development and is preparing the final technical reports for the submission of an Environmental Impact Statement, currently planned for early 2015. The timing of the Balranald project remains subject to the final results of the definitive feasibility study, environmental and other approvals and economic and market conditions.

### **Cataby, Western Australia**

The Cataby mineral sands deposit, located north of Perth, is a deposit that is expected to produce ilmenite suitable for sale, or as a feed source for synthetic rutile production, and material volumes of zircon, as well as rutile. Subject to study completion and approvals, Cataby has an economic life of an initial six years, which is potentially extendable beyond 10 years.

Formal approval from the Western Australian Environmental Protection Agency to expand the Cataby operating footprint from 650 hectares to 1,942 hectares was received in December, significantly de-risking the project.

The definitive feasibility study is substantially complete and planning for pre-execute activities and implementation is well advanced.

### **Eucla Basin Satellite Deposits, South Australia**

Iluka has undertaken a scoping study on the Sonoran, Atacama and Typhoon satellite deposits in proximity to the Jacinth-Ambrosia operation in the Eucla Basin. The pre-feasibility study is underway and scheduled for completion in 2016.

The pre-feasibility study on the Sonoran, Atacama and Typhoon satellite deposits in proximity to the Jacinth-Ambrosia operation in the Eucla Basin is well underway.

Following the resource delineation air core drilling on the Atacama deposit in early 2014, the Atacama resource has increased substantially. A further drilling programme has subsequently been completed to move the resource definition from Inferred to Indicated. Geological analysis and updated modelling is scheduled for the third quarter 2015.

Planned activities associated with the next phase of the study will focus primarily on the geometallurgical characteristics and ilmenite quality of the Atacama mineral.

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

The Hickory project is located in Dinwiddie County, Virginia, approximately 19 kilometres west of the existing Iluka Stony Creek mineral separation plant and includes unmined portions of the Old Hickory ore body. The Hickory project is capable of producing high quality chloride grade ilmenite and an associated zircon production stream utilising the existing mineral separation plant at Stony Creek.

The definitive feasibility study for the Hickory project has been completed and further activities suspended in accordance with Iluka's ASX Release of 12 December 2014.

### **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. The deposit is capable of producing chloride ilmenite and an associated zircon production stream.

The project has progressed to the definitive feasibility stage with permitting activities continuing while further activities have been suspended in accordance with Iluka's ASX Release of 12 December 2014.

### **Puttalam, Sri Lanka**

In Sri Lanka, the focus remained on gaining clarity with the Government in relation to the legal and investment terms for the development of the Puttalam project. Given the lead up to national elections, recently completed, this activity was largely on hold during the December quarter. Although early days, initial views are that the change in Government will be positive for developments such as Iluka's Puttalam project.

Refer Iluka's website ([www.iluka.com](http://www.iluka.com)) – Section: Company, Projects, for more detail on these projects.

## **EXPLORATION**

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

The Atacama, Sonoran and Typhoon deposits (refer Figure 1) have the potential to supplement or extend mining activities in the Eucla Basin, through the likely utilisation of existing infrastructure at Jacinth-Ambrosia.

Resource delineation drilling on the Atacama deposit, as part of the pre-feasibility study, was completed on EL 5198. This drilling has had the aim of better defining the spatial location of the mineralisation and improving the confidence in the geological model for the deposit. Atacama is the largest of the three deposits with a current Inferred Resource of 110 million tonnes of material grading at 9 per cent heavy mineral (HM) and containing 9.9 million tonnes of HM at a 3 per cent cut-off.

The delineation drilling programme comprised, 814 holes for 41,051m, samples are currently being processed through Iluka's exploration laboratory in Hamilton Victoria with final assay results available early in 2015.

### **Canning Basin, Western Australia**

Iluka has been granted an additional 14 exploration tenements in the Canning Basin region of north west Western Australia (refer Figure 2) after entering into a Native Title, Heritage Protection and Mineral Exploration Agreement with Karajarri Traditional Lands Association Aboriginal Corporation. Greenfield exploration activities will be conducted on the tenements in 2015.

### **Perth Basin, Western Australia**

Iluka has entered into a Farm-in and Exploration Joint Venture Agreement with Astro Resources NL for E70/2464 (refer Figure 3) through its wholly owned subsidiary, Governor Broome Sands. Under the agreement, Iluka is to undertake minimum expenditure to earn an initial interest of 51 per cent, at which time an unincorporated Joint Venture is established. Iluka can undertake further expenditure to increase interest to 80 per cent. Astro is free carried until identification of JORC compliant resource at which stage it must participate in spending or dilute its interests. Greenfield exploration activities are planned for the first quarter of 2015.



Figure 1 Eucla Basin Tenements

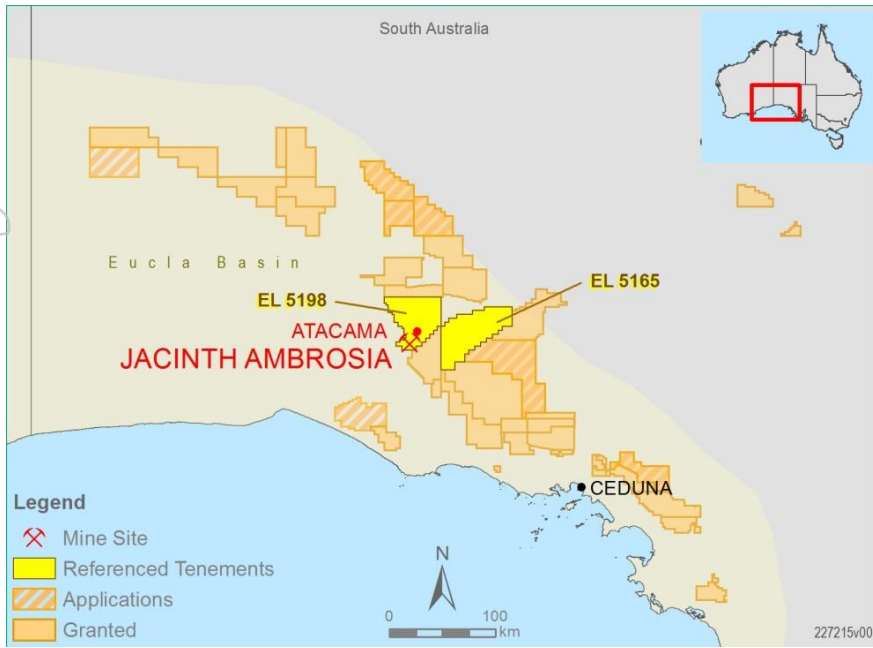
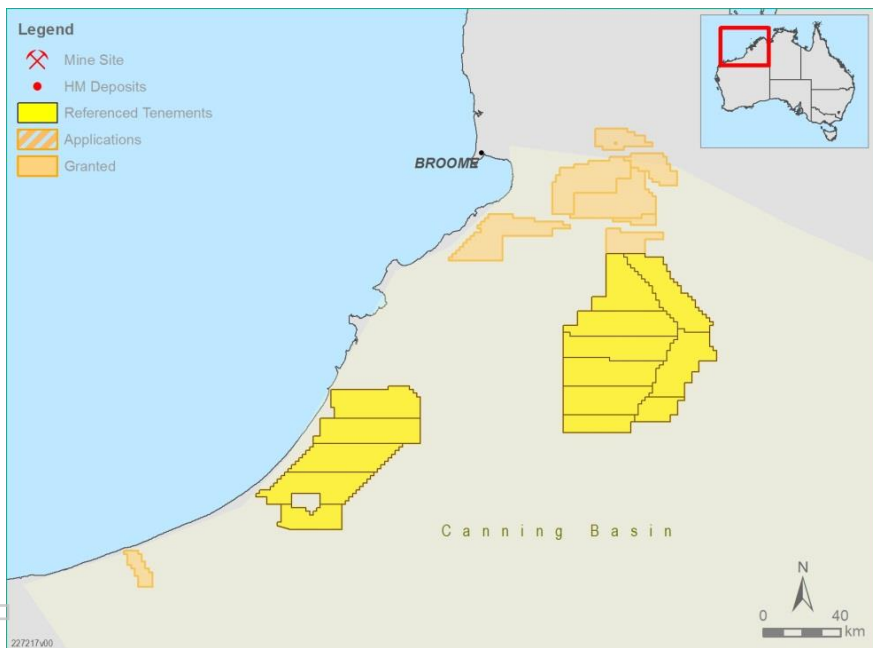


Figure 2 Canning Basin Tenements



**Figure 3 Perth Basin, Western Australia**



For personal use only

## Exploration – New Commodities

Iluka has a small team, the role of which is to assess non mineral sands prospectivity on Iluka tenements, and also enter into arrangements to acquire opportunities on other tenements. Recent activities are outlined below.

### Fowler Project – Base Metals

Exploration activities in 2014 at the Fowler Project, located 60 kilometres north east of the Jacinth-Ambrosia mine, included regional airborne and ground electromagnetic (EM) surveys. Follow-up Air Core and Reverse Circulation drilling programmes were completed at the Splendour Prospect. The geochemical assays from the drilling programmes are incomplete. Additional regional and prospect-scale geophysical and drilling programmes are planned for 2015.

### New Commodities – Farm Out Agreement

During the quarter, a farm-out agreement was executed with Doray Minerals (Doray). The agreement provides Doray access to around 21,000 square kilometres of ground within the Eucla Basin project area. Iluka will retain the right to 20 per cent of any gold resources discovered, with Iluka retaining the rights to all other commodities. Doray must spend a minimum of \$1 million in the first year to earn 20 per cent, after which it can choose to withdraw, or continue to other expenditure milestones. Once Doray reaches expenditure of \$7 million during the six-year farm-in period, a formal joint venture will be formed with Iluka free-carried until a decision to mine. Upon a decision to mine, Iluka will have the option to contribute or dilute down to a 2 per cent net smelter royalty.

### 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.

The New Commodities team also continues to assess and develop opportunities within Australia and overseas.

### Investment market and media enquiries:

Dr Robert Porter  
General Manager, Investor Relations  
Phone: + 61 (0) 3 9225 5008  
Mobile: +61 (0) 407 391 829  
Email: [robert.porter@iluka.com](mailto:robert.porter@iluka.com)

**APPENDIX 1 - OPERATING MINES – PHYSICAL DATA**  
**12 Months to 31 December 2014**

	Jacynth-Ambrosia	Murray Basin	Western Australia	Australia Total	Virginia	Group Total	2013 Group Total
<b>Mining</b>							
Overburden Moved kbcm	1,407	14,899	-	16,306	-	16,306	11,874
Ore Mined kt	7,989	3,630	-	11,619	3,070	14,689	19,300
Ore Grade HM %	7.1	34.3	-	15.6	5.4	13.5	10.7
VHM Grade %	6.4	31.2	-	14.1	4.3	12.1	9.3
<b>Concentrating</b>							
HMC Produced kt	505	630	-	1,135	170	1,305	1,538
VHM Produced kt	451	562	-	1,013	122	1,135	1,327
VHM in HMC Assemblage %	89.2	89.3	-	89.3	71.7	87.0	86.2
Zircon	56.4	26.5	-	39.8	16.0	36.7	34.9
Rutile	6.5	39.6	-	24.8	-	21.6	14.2
Ilmenite	26.3	23.2	-	24.6	55.7	28.6	36.1
HMC Processed kt	414	376	6	796	172	968	1,044
Finished Product <sup>1</sup> kt							
Zircon	212.4	93.0	27.1	332.5	25.1	357.6	285.1
Rutile	29.5	147.5	0.2	177.2	-	177.2	127.0
Ilmenite	101.8	168.0	0.8	270.6	94.8	365.4	584.5
Synthetic Rutile Produced kt			-	-		-	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 [www.iluka.com](http://www.iluka.com), under Investor Relations, Mineral Sands Briefing Material, 2010. 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 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.

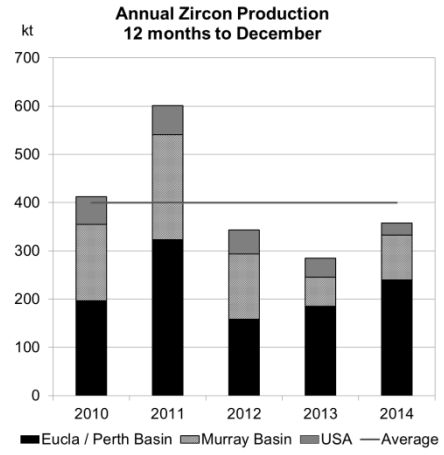
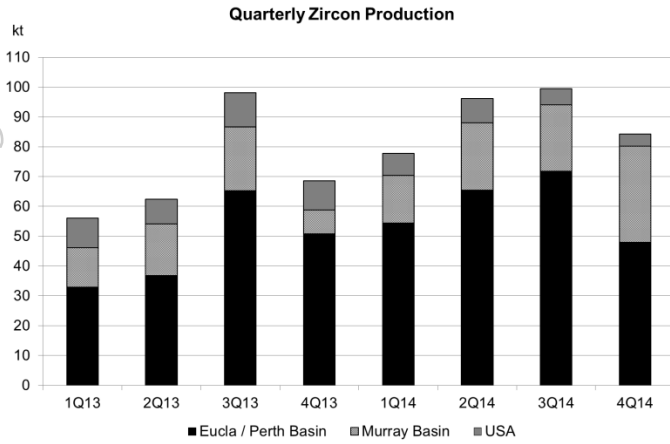
**Ilmenite** is produced for sale or as a feedstock for synthetic rutile production.

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.

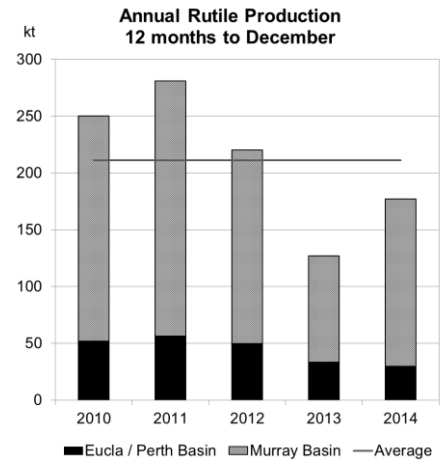
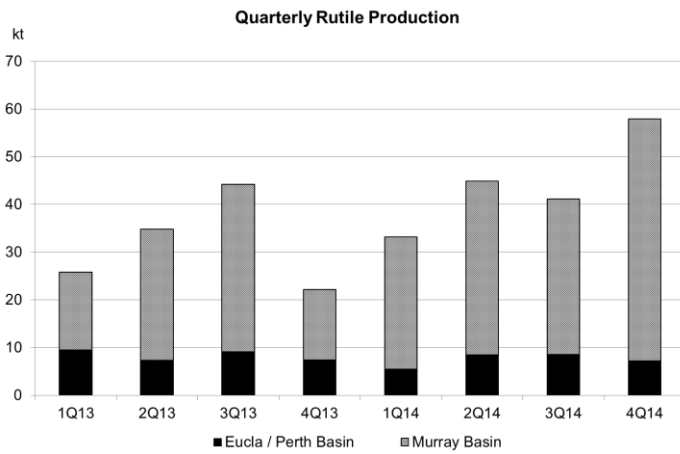
Refer Iluka's website [www.iluka.com](http://www.iluka.com) – Mineral Sands Technical Information for more detailed information on the mineral sands mining and production process.

# APPENDIX 1 – PRODUCTION SUMMARIES

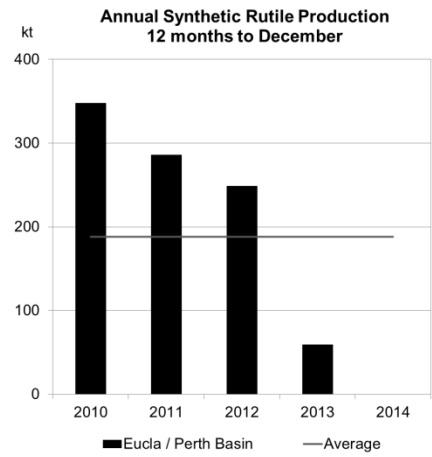
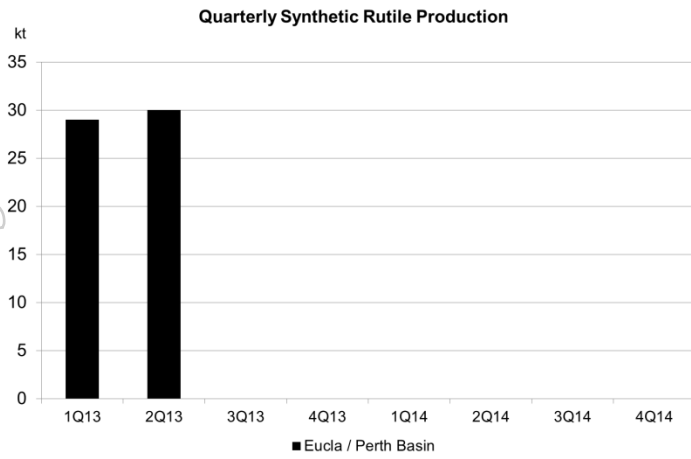
## Zircon



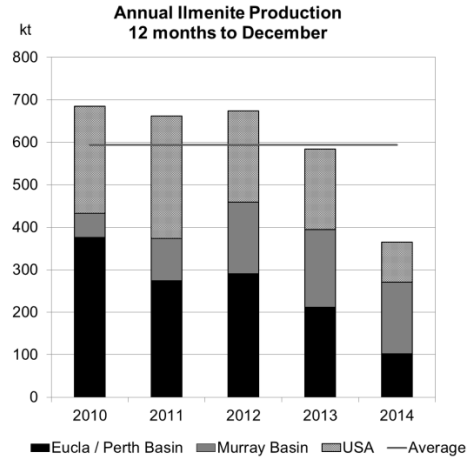
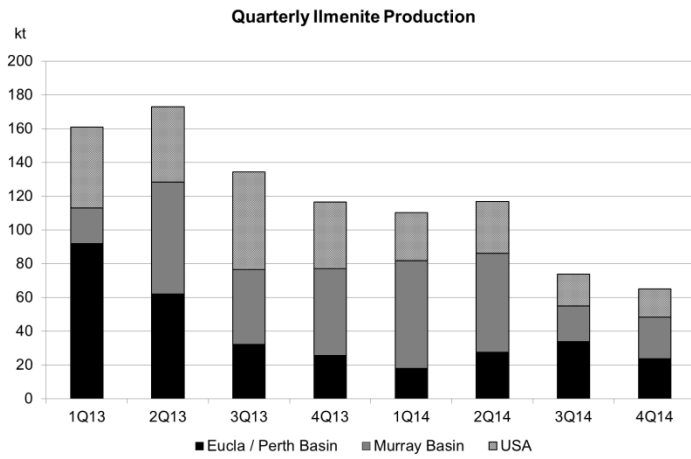
## Rutile



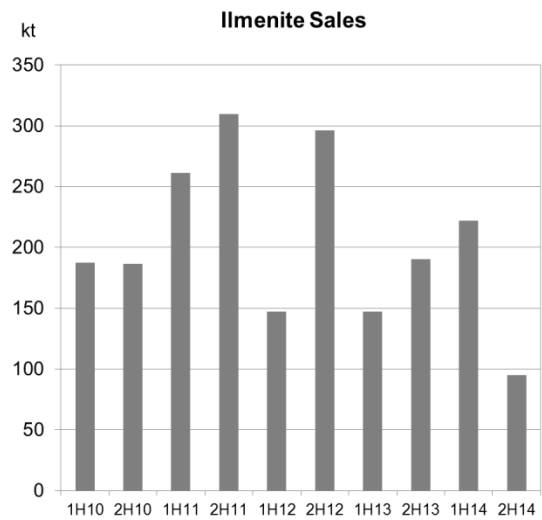
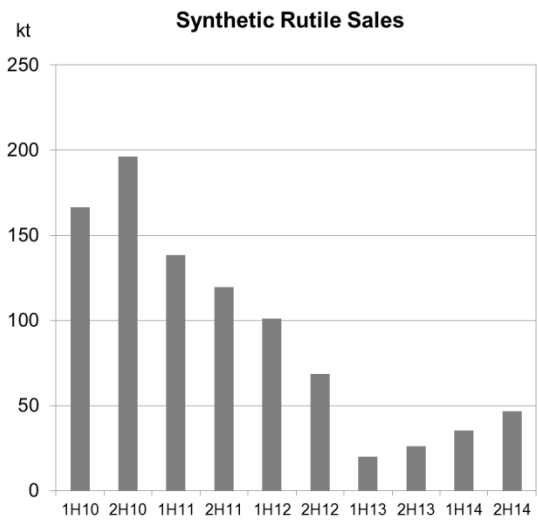
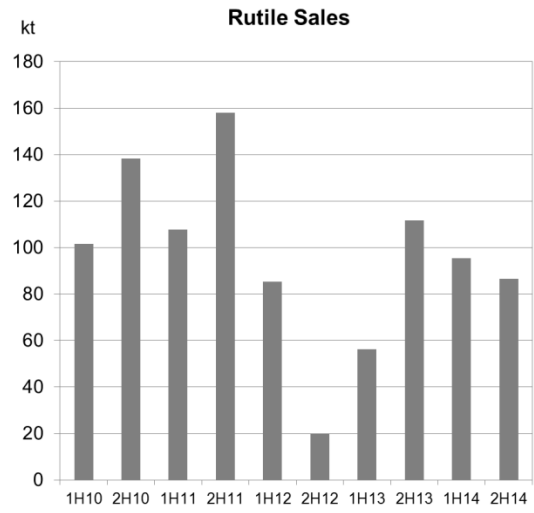
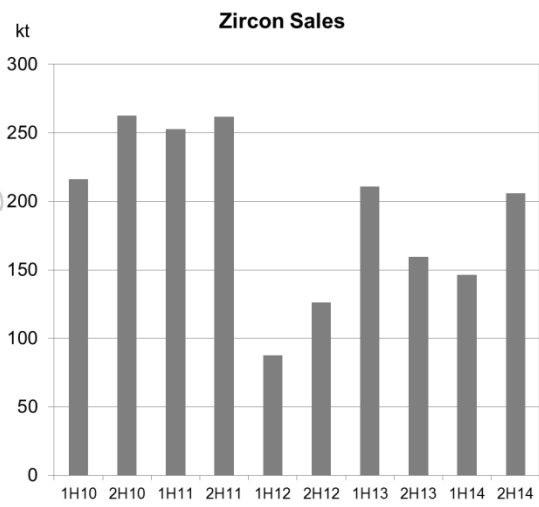
## Synthetic Rutile



## Ilmenite



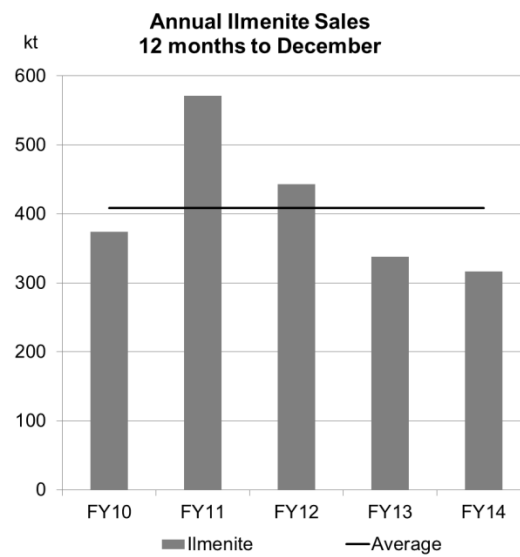
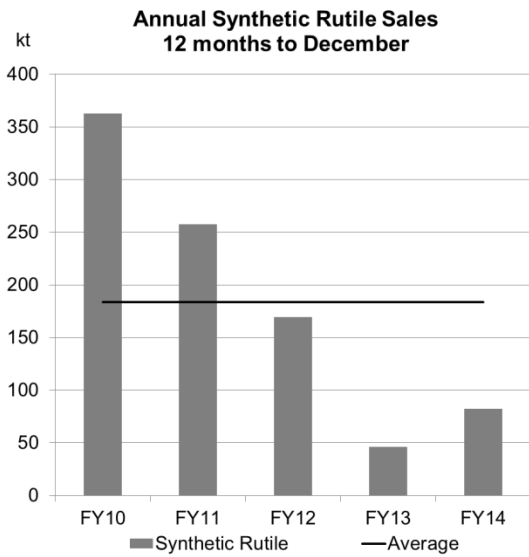
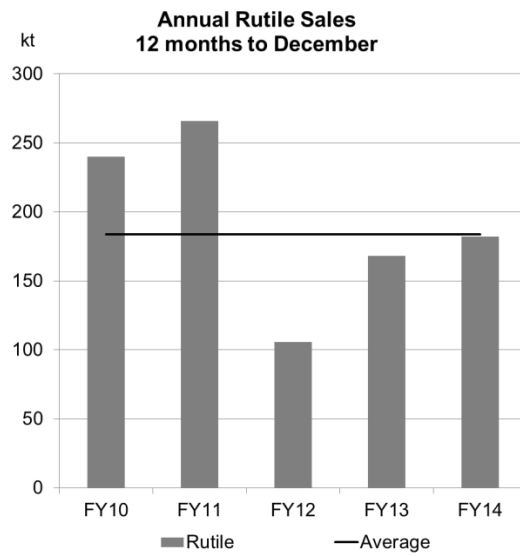
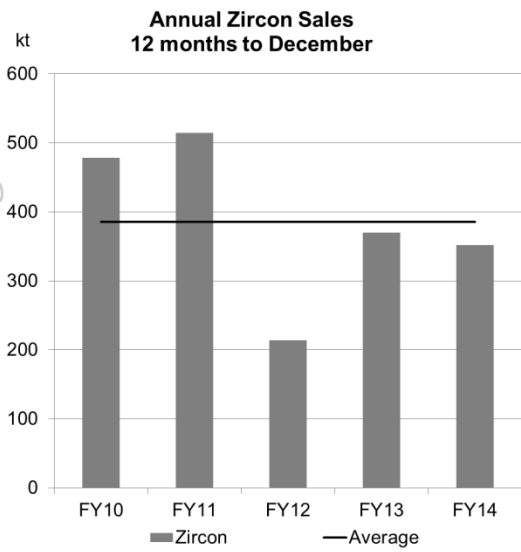
## APPENDIX 2 – SIX MONTHLY SALES PROFILE



For personal use only

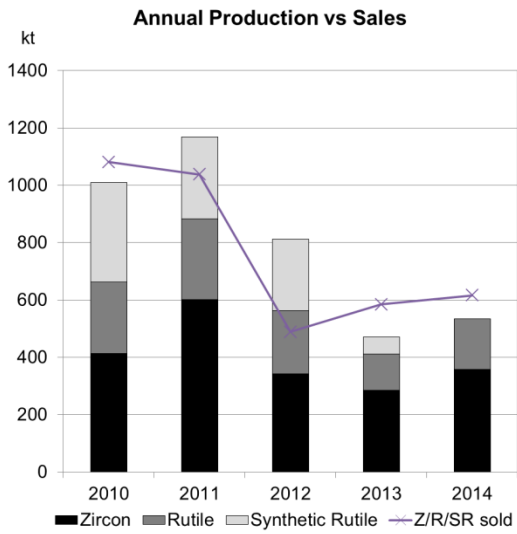


**APPENDIX 3 – ANNUAL SALES PROFILE**



For personal use only

**APPENDIX 4 – ANNUAL PRODUCTION VS SALES**



**5 Year Summary Data 2010 - 2014**

	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
	kt	kt	kt	kt	kt
<b><u>Annual Production</u></b>					
Zircon	413	601	343	285	357
Rutile	250	281	220	127	177
Synthetic Rutile	347	286	248	59	-
<u>Z/R/SR</u>	<u>1,010</u>	<u>1,168</u>	<u>811</u>	<u>471</u>	<u>534</u>
Ilmenite	685	662	674	585	365

	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
	kt	kt	kt	kt	kt
<b><u>Annual Sales</u></b>					
Zircon	479	514	214	370	352
Rutile	240	266	105	168	182
Synthetic Rutile	362	258	170	46	82
<u>Z/R/SR</u>	<u>1,081</u>	<u>1,038</u>	<u>489</u>	<u>584</u>	<u>616</u>
Ilmenite	374	571	443	337	317