



**ILUKA**

# Australian Securities Exchange Notice

28 March 2013

The Manager  
Company Announcements Office  
Australian Securities Exchange

## **Iluka Review 2012**

Further to the release of the Iluka Review 2012 made earlier this morning, please find attached the revised Iluka Review 2012 with page 38 included.

Yours sincerely

A handwritten signature in black ink that reads "C. Wilson".

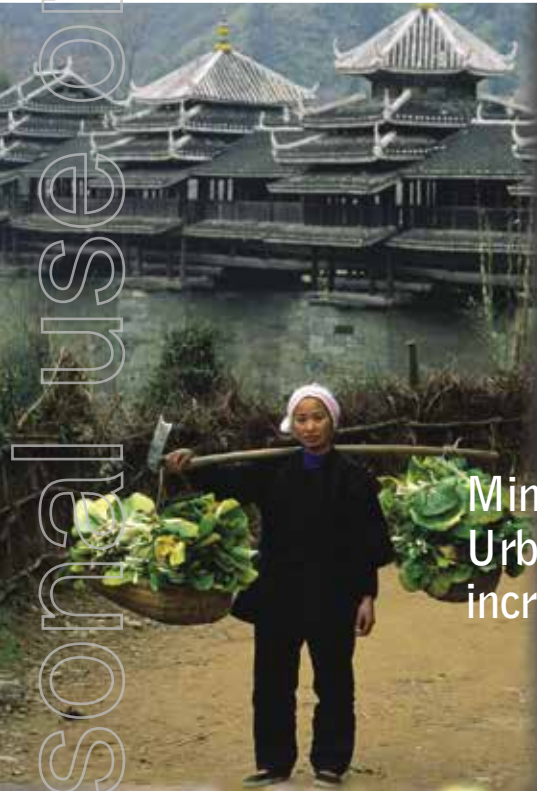
**Cameron Wilson**  
**Company Secretary**



**ILUKA**

**Iluka Review  
2012**

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Mineral sands:  
Urbanisation, consumption-led growth,  
increasingly diverse applications



**CREATE AND DELIVER VALUE FOR SHAREHOLDERS**

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Iluka Resources Limited 58th Annual General Meeting of Shareholders  
will be held in River View Room 5 at The Perth Convention and Exhibition Centre,  
21 Mounts Bay Road, Perth, Western Australia  
on Wednesday, 22 May 2013 commencing at 9.30am (WST).



## Features of 2012

### ■ Health and safety

- Total recordable injury frequency rate of 10.5 (per million hours worked); a 30% decrease from 2011
- Lost time injury frequency rate of 1.9; a 39% decrease from 2011
- Severity rate of 46.7, a 10% decrease from 2011

### ■ Environmental management

- 1,042 environmental incidents in 2012 versus 746 in 2011, reflecting more extensive reporting policy
- 76% of environmental incidents were classified as level 1, the lowest level
- 7% energy usage reduction at end of 5 year cycle

### ■ Ore Reserves and Mineral Resources

- Ore Reserves declined by 1.47 million tonnes (mt) to 28.97 mt (net of depletions)
- Approximately 14 years reserve cover relative to 2012 depletion level
- Mineral Resources increased by 1.9 mt to 122.7 mt

### ■ Challenging market conditions

- Weak demand and difficult market conditions for zircon throughout year
- Zircon sales volumes of 214 thousand tonnes (kt), down 58% from 2011
- Lower second half demand for high grade titanium dioxide products
- Rutile sales of 106 kt, down 60% from 2011
- Synthetic rutile sales of 170kt, down 34% from 2011
- Higher weighted average prices received year-on-year

### ■ Financial performance

- Mineral sands revenue of \$1,069.8 million
- Net profit after tax of \$363.2 million
- Mineral Sands EBITDA margin of 67.9%
- Return on equity of 23.2%
- Return on capital of 32.8%

### ■ Balance sheet

- Free cash flow generation of \$81.2 million
- Net debt at year-end of \$95.9 million
- Gearing (net debt/net debt+ equity) of 5.8%
- New bank debt facilities of \$800 million with 5 year term established

### ■ Shareholder returns

- Disappointing annual share price performance of negative 42% to 31 December 2012
- 3 year cumulative Iluka total shareholder return of 173%
- ASX Materials Index over the three-year period to 31 December 2012 decreased 17%
- 35 cents per share total 2012 dividends, fully franked

### ■ New production

- On time and on budget mine move from Kulwin to Woorack, Rowrack and Pirro (Murray Basin, Victoria)
- Balranald pre-feasibility study advanced (Murray Basin, New South Wales)
- Cataby pre-feasibility study advanced (Perth Basin, Western Australia)
- Aurelian Springs pre-feasibility study advanced (North Carolina, United States)
- Old Hickory definitive feasibility study completed; development work commenced (Virginia, US)

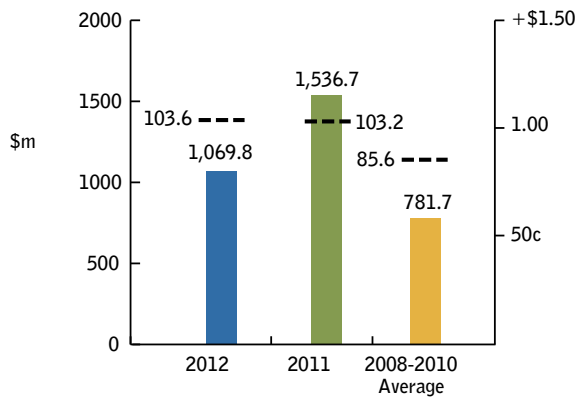
### ■ Exploration commitment

- Increased exploration expenditure commitment to Eucla and Murray basins (Australia)
- Establishment of two new international exploration areas (including Brazil tenement position)

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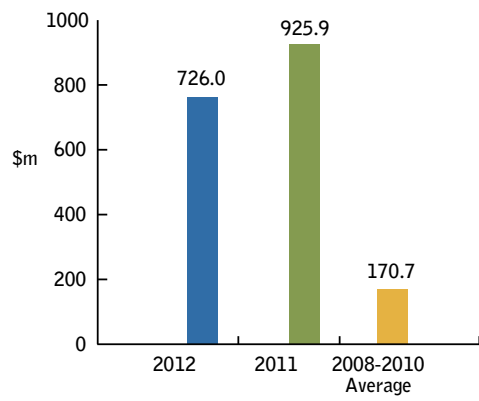
## 2012 Financial Summary

**MINERAL SANDS SALES REVENUE**

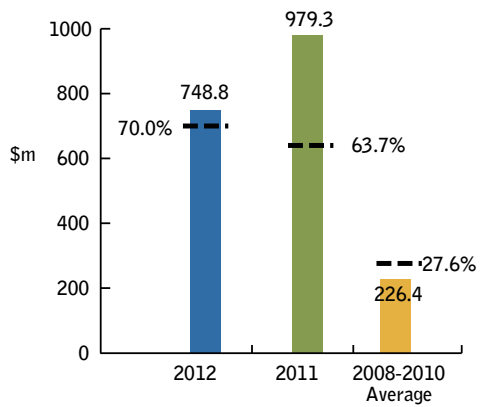


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Average AUD:USD

**MINERAL SANDS EBITDA**

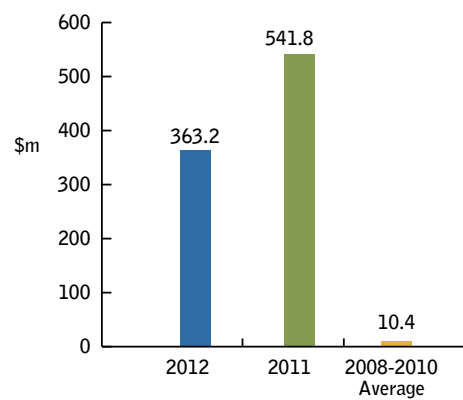


**GROUP EBITDA (including Mining Area C)**

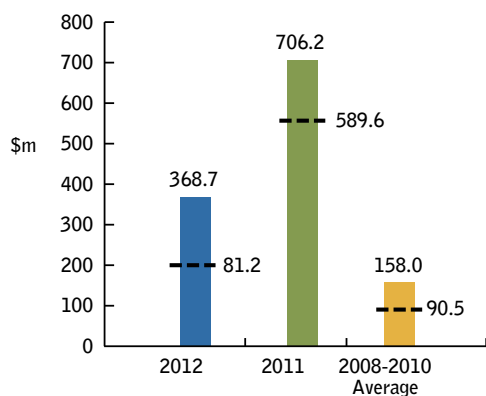


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EBITDA MARGIN %

**NET PROFIT AFTER TAX**

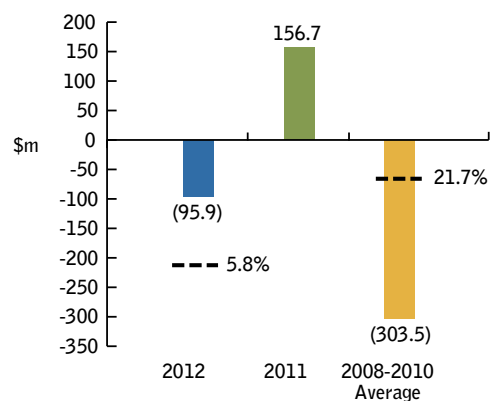


### CASH FLOW



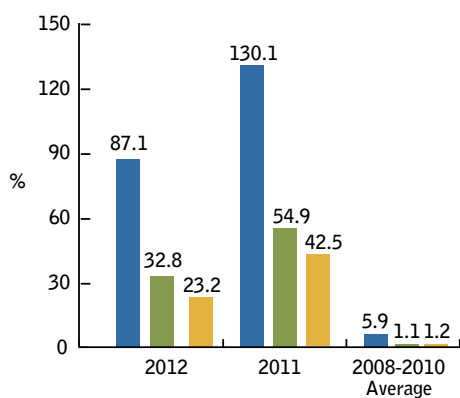
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FREE CASH FLOW

### NET (DEBT) CASH



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GEARING  
(Net debt/net debt + equity)

### FINANCIAL RATIOS



■ EPS (cps)   ■ ROC %   ■ ROE %



# Mineral Sands – Key Influences on Demand

## Urbanisation

Urbanisation is a major global trend influencing demand for mineral sands products. Increases in floor space under construction and a cultural and climatic preference for ceramic tiles for flooring in many rapidly urbanising countries, as well as use of paint for construction and furnishing, are likely to continue fuelling demand for zircon and titanium based products.

The world's population is transforming on a scale possibly equivalent only to the Industrial Revolution; this time led by unsurpassed levels of urban population growth in developing economies. Urbanisation is a catalyst for economic growth as cities offer increased economies of scale, lifestyle and social opportunities. People living in urban areas have a mean income of up to three times those living in rural settings. Urbanisation is an influential trend for mineral sands demand as higher living standards and consumer aspirations flow through to the use of pigment (mainly in the form of paint, but also in plastics, paper etc.), as well as increased spending on a range of consumer goods which contain titanium ore feedstocks and zircon as key components of their manufacture.

McKinsey<sup>1</sup> estimate that between 2010 and 2025, urban areas will add the equivalent of 85 per cent of today's residential and commercial floor space, or more than 80,000 square kilometres. Around 38 per cent, or 31,000 square kilometres, of this increase is forecast to be in China.

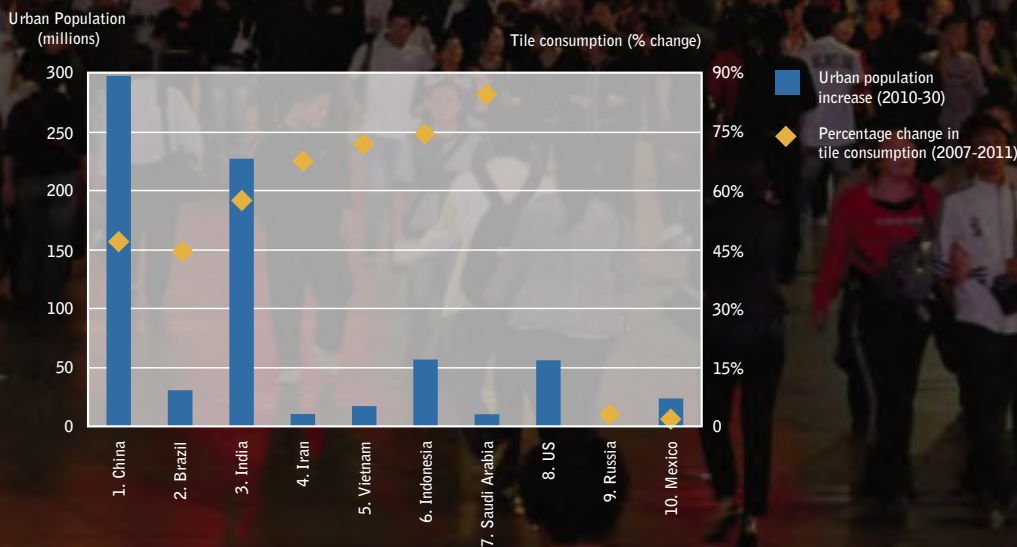
Apart from the resources required for floor space construction, demand for consumer goods such as cars, mobile phones and white goods is also forecast to rise with urbanisation. McKinsey estimate that the global car fleet will double to 1.7 billion by 2030.

The chart below indicates that there is forecast to be large increases in the urban population, including in three of the top tile consuming countries of China, India and Indonesia.



**CITIES ARE EXPECTED TO NEED TO BUILD FLOOR SPACE<sup>2</sup> EQUIVALENT TO 85 PER CENT OF TODAY'S BUILDING STOCK BY 2025 – OR 80,000 SQUARE KILOMETRES – AN AREA THE SIZE OF AUSTRIA.**

### Urbanisation and tile consumption



Source: Ceramic World Review, UN and IMF

1. Urban World: Cities and the risk of the consuming class, McKinsey Global Institute, June 2012

2. Floor space for commercial and residential buildings, including building replacement.

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## Consumption-led growth

Developing economies, such as China, are entering a period where economic growth will be comprised increasingly of consumption rather than investment, as has been the case for the past decade. This represents a positive trend for many applications for mineral sands products.

Demand for consumption goods is increasing at a rapid rate in developing economies. Increased demand for higher quality house and apartment fittings and appliances, higher quality food and consumer goods, air travel and consumer electronics is a trend being replicated on a massive scale in developing economies.

Zircon and titanium, often referred to as late-cycle mineral commodities, are used in a range of consumer, manufacturing and industrial applications, the demand for which is influenced by the twin forces of urbanisation and consumption-led growth.

McKinsey defines consumers, or those with income sufficient to buy more than the basic necessities, as having a household income greater than US\$3,600 per annum. Between 2010 and 2025, 2.8 billion people worldwide are forecast to join this income bracket.

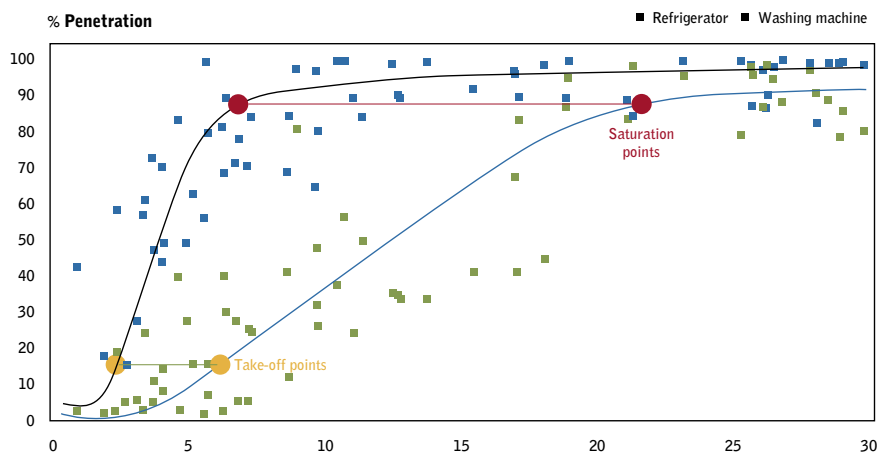
The growth in demand for many consumer goods will exceed the expansion of the number of consumers, as at these income levels spending on certain goods and services reaches an inflection point and accelerates relative to income growth. Different goods and services are estimated to have different inflection points. For example, purchase of refrigerators accelerates at an annual income from US\$2,500 and washing machines from US\$6,000. Consumption then continues to grow until adoption reaches saturation.



**1 BILLION NEW CONSUMERS  
IN EMERGING ECONOMY  
CITIES BY 2025<sup>1</sup>**

### Rising incomes and purchases of common consumer goods

(Household penetration by country, 2007)



Source: Euromonitor, McKinsey Global Institute analysis.

Per capita income  
\$ thousand, PPP

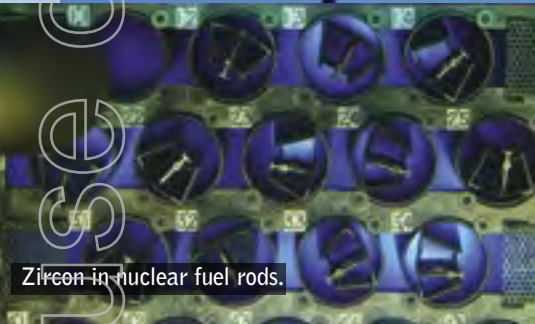
The accompanying chart shows the relationship between rising incomes and purchases of two common consumer goods. Consumption of such goods accelerates at lower income levels and reaches saturation point earlier than goods considered luxury items.

The shape of the penetration curve varies across products, leading to very different market growth patterns.



## Increasingly diverse applications

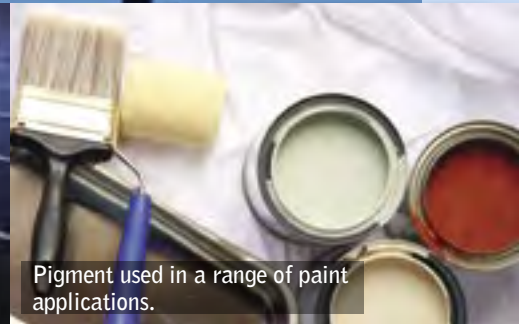
Applications for mineral sands products are becoming increasingly diverse and often display growth rates higher than the current mainstream ceramics and pigment based applications.



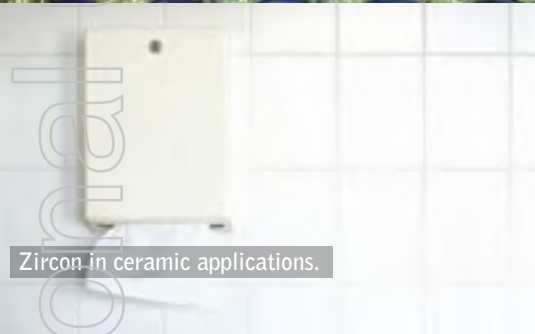
Zirconium in nuclear fuel rods.



Titanium dioxide in solar panels.



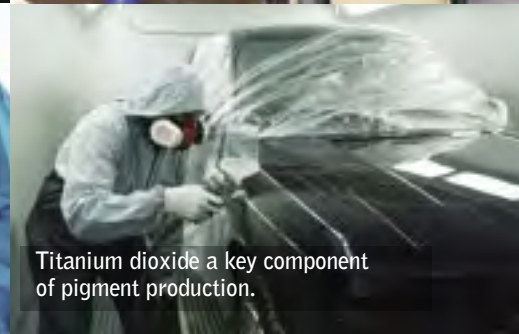
Pigment used in a range of paint applications.



Zirconium in ceramic applications.



Zirconium and titanium dioxide in medical applications.



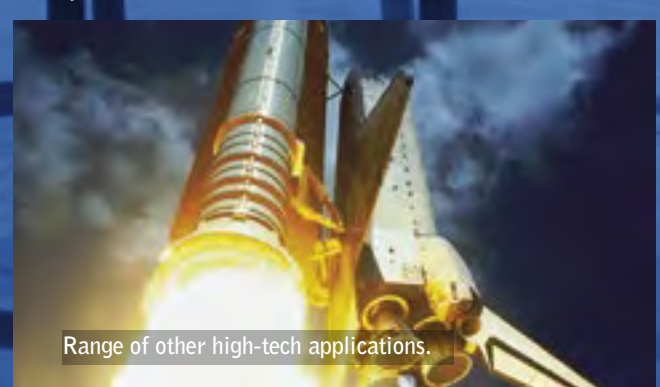
Titanium dioxide a key component of pigment production.

The conventional view of mineral sands' applications focuses on pigment based coatings (paint, plastics, paper etc.) and ceramics. These are clearly important end-uses and have accounted for approximately 90 per cent and 55 per cent of end-use demand of titanium dioxide and zircon respectively.

However, demand and increasing end-use applications, combined with the usual trends of thrift and technical change, mean that the emerging dynamics of mineral sands product demand may change appreciably in future years.



Zirconium used in the manufacture of fibre optics.



Range of other high-tech applications.

### Zircon

Zirconia and zircon specialty chemicals (accounting for around 18 per cent of zircon demand), is the fastest growing segment of zircon demand and is estimated by some industry analysts as likely to overtake zircon use in ceramics within 5 years. End-use applications are diverse and growing: catalytic converters used to reduce emissions from automotive exhaust systems (the fastest growing application in chemicals), water and air purification products, additives to diesel for increased fuel efficiency, antiperspirants, zirconium metal for nuclear reactors, fibre optics for telecommunications, motherboards and capacitors in electronics, and oxygen, pressure and electric current sensors, as well as a range of uses in medical and human implant applications, and in sporting goods manufacture, constitute part of the array of applications.

### High grade titanium dioxide

Titanium metal accounts for around four per cent of titanium demand and, in addition to being used in aircraft frames and engines, has varied end uses. These include water cooling systems for power generation and desalination plants, seawater and storage components of off-shore oil and gas rigs, and bone joints and replacements. Titanium dioxide nano particles are finding increased applications in areas such as dye-sensitised solar cells, self-cleaning external coatings, anti-bacterial and deodorising surface coating treatments, and water and air purification.

## Iluka's objective: to create and deliver value for shareholders

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The 2012 Iluka Review provides shareholders with an overview of Iluka's 2012 financial year.

More detailed information in relation to financial statements, the Directors' Report (including the Remuneration Report), and Corporate Governance Statement can be obtained by reference to the 2012 Annual Report available on Iluka's website [www.iluka.com](http://www.iluka.com).

Australian currency is shown in this document unless otherwise specified.

kt refers to thousand ('000) metric tonnes.

## Chairman's Review



The 2012 financial year was challenging, with Iluka operating in tough market conditions. The company nevertheless recorded the second highest profit in its history. The reduction in the company's 2012 earnings to \$363.2 million from \$541.8 million in 2011 represented the adverse impact on revenues from markedly lower sales volumes across all of the principal products. The impact of lower sales volumes was compounded by a decline in received prices in the latter part of 2012.

While the decline in financial performance is disappointing, it predominantly represents the impact of cyclical factors. These cyclical factors will pass as business confidence is restored and as global economic growth resumes.

It remains the focus of the Board and management to ensure the company navigates the challenging conditions in the strongest possible position, while preserving its options and balance sheet capability to be able to take advantage of appropriate growth or diversification opportunities. In this regard, the Board believes management has responded appropriately, and put in place planning options for various business settings in 2013, given that the trajectory of demand recovery remained uncertain entering the New Year. As is usual in business, and especially in difficult and uncertain market conditions, areas have been identified where market insights could have been more comprehensive, particularly further down the mineral sands customer chain. I am confident that the company's knowledge and capabilities will further evolve.

Despite the weakening of financial performance from the historically high level of 2011, the company has been able to record a return on capital of 32.8 per cent and a return on shareholders' equity of 23.2 per cent in the 2012 financial year. Free cash flow generation reduced, but the company ended the year with a modest level of net debt and a gearing ratio (net debt/net debt + equity) of 5.8 per cent. The company renewed its debt facilities in 2012 and now has an \$800 million multi-lateral facility in place, with four years tenor remaining.

The Managing Director will discuss the factors affecting business performance in more detail, as well as the outlook for the mineral sands sector. But clearly there will be challenges in 2013 as demand may take some time to recover.

I would like to touch on a number of matters of shareholder interest and governance, which are areas of focus for the Board.



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Health and safety performance, as well as high standards of environmental performance, are of pre-eminent importance to the Board. It has been pleasing that, on key measures of health and safety performance, such as the total recordable injury frequency rate, there have been further improvements, following on from the initiation of a major company-wide program in the first half of 2011. In fact, since the end of 2010, the lost time injury frequency rate and the total recordable injury frequency rate, two of the key measures monitored, have declined by 50 per cent and 38 per cent respectively.

Apart from regular management reporting, Directors take advantage of operational site visits to observe safety and environmental cultures, performance initiatives and practices across the company. In 2012 this involved a Board visit to the Virginia operations, to various exploration areas and to the Murray Basin operations in Victoria.

Returns to shareholders, both in terms of share price performance and capital management, such as dividends, are central given the company's principal focus: to create and deliver value for shareholders. The Iluka share price performance in 2012 was poor both in absolute and relative terms, following two years of strong share price appreciation. As shareholders will recall, the company reinstated payment of dividends at the end of 2010. The company's policy is to pay a minimum of 40 per cent of free cash flow as dividends. Since 2010 to the end of 2012, Iluka has returned 68 per cent of free cash flow (after capital expenditure) in the form of dividends, or a total of \$1.18 per share. Over the same period, the company's net debt reduced from \$312.6 million to \$90.0 million as at the end of January 2013.

The 2012 dividend payments amounted to 35 cents per share, fully franked.

Governance matters, such as compliance, risk and remuneration, consume a major part of the attention of Directors. The Board is confident that the company's remuneration policies and practices remain consistent with the attraction and retention of a high calibre workforce, and that short and long term incentive arrangements remain aligned to the delivery of growth objectives and shareholder interests. The Remuneration section of the Annual Report provides a detailed explanation of 2012 remuneration practices and outcomes.

The Board announced the appointment of two new Directors: James (Hutch) Ranck and Greg Martin. Hutch had a distinguished career with the major global group and Iluka titanium dioxide customer, DuPont. Greg has had a career in the energy, utility and infrastructure sectors, including as Managing Director of AGL. Their appointments bring considerable corporate and industry experience to the Board and they are welcome additions, both of whom I am confident will serve shareholder interests diligently.

In concluding, I would like to acknowledge and thank my fellow Directors for their professionalism and contribution during 2012. I would like to acknowledge David Robb and his management team for their efforts during a difficult year, as well as the wider employee workforce for their commitment and efforts. It is regrettable that production response and cost reduction actions announced in February 2013 meant that approximately 200 positions in the company, as well as a number of contractor positions, were made redundant.

The Directors acknowledge and appreciate the continuing support of shareholders in what has clearly been an unrewarding year for them.

I am confident that the factors which have affected your company's performance in 2012 are cyclical, although challenges will remain in 2013 with continuing low sales volumes and lower pricing impacting revenues and financial outcomes. I am confident that Iluka is well positioned in terms of its industry position and quality of products and market presence, with favourable underlying demand dynamics over the medium to longer term.

**John Pizzey**  
Chairman

## Managing Director's Review



The Chairman has made reference to the cyclical nature of the resources sector and it is apparent from the events of 2012 that Iluka's short term performance has been influenced markedly by such cyclical factors, as well as some one-off structural impacts.

This Iluka Review provides an overview of the main features of Iluka's business and its physical and financial performance in 2012. My comments will focus predominantly on the market context for Iluka's main products (zircon and the high grade titanium dioxide products of rutile and synthetic rutile); the approach that Iluka adopted in 2012 to achieve the best possible financial outcome for shareholders in challenging and volatile market conditions; and the company's perspective and focus areas for 2013.

Iluka's principal objective is to create and deliver value for shareholders. To facilitate this, a focus on environmental, health and safety performance is paramount, while the company must

continue to attract high quality people, provide training and growth opportunities for existing employees, and maintain a commitment to diversity and sustainability principles.

The resources sector typically exhibits cyclicity. In 2012 this has been magnified for Iluka as a result of a number of factors referred to below. For Iluka management, the focus is always on managing through periods of cyclicity and on achieving the best possible shareholder outcomes over the medium to longer term. This entails adopting an appropriate risk-based approach to business planning and asset configuration to take account of uncertainties in global economic performance and the nature of associated demand swings. It is also important to preserve options for future growth, whether in terms of marketing presence, new products, operational flexibility, diversity or organisational and employee capability. Recent market conditions have presented challenges in each of these areas.

To use an analogy which may be illustrative of recent business conditions, having climbed the mountain to place Iluka in a much stronger financial position in late 2010 and 2011, and having delivered highly competitive shareholder returns with total shareholder returns over three and five years of 173 per cent and 185 per cent respectively, it is recognised that under recent economic and market conditions, some retracement to a 'base camp' level was always a possibility. The retracement has been observed in the pressure on sales volumes and pricing in 2012.

To continue the illustration, our intent has been to attempt to ensure this 'base camp' is positioned as high and as securely as practicable on the mountain side, such that we preserve much of the hard won gains and position the company to take advantage of a return to more favourable conditions, which will occur.

In this regard, Iluka continues to believe in the positive medium to longer term demand dynamics for its products, influenced by economic growth in developing economies and by the transformational trends of urbanisation and increasing personal consumption levels, as well as new applications for zircon and titanium dioxide products.

## 2012 market conditions

Market conditions in 2012 for Iluka's products were influenced by a combination of the following factors:

- global economic performance, including low growth in major markets of North America and Europe, as well as volatile economic and political conditions in developing economies in Asia, North Africa, the Middle East and South America;
- while minimal inventories of zircon were held directly downstream of Iluka, a destocking and working capital adjustment phase has been evident in the ceramics manufacturing sector. This, in combination with the adoption of modern tile making techniques in China, as well as some level of thrifting and substitution, had an impact on global zircon demand;
- in the case of high grade titanium dioxide, appreciably lower second half demand for rutile and synthetic rutile was associated with pigment producers working down pigment inventories, which had built to high levels during the first half of the year, and efforts to maximise purchase and consumption from remaining low priced legacy contracts, or other cheaper material; and
- overall fragile business confidence levels which, in the case of zircon in particular, led customers to operate on a 'just-in-time basis' in ordering patterns, often only running plants when back-to-back commercial arrangements were available to secure processing margins.

The combination of these factors had a more serious overall impact on market demand for Iluka's products than was the case in 2009.

Unlike 2009 and early 2010, where a recovery in demand and business confidence levels was rapid and aided by major fiscal stimulus measures implemented by central governments, the world economy has had continuing challenges.

## Zircon

Iluka has stated since the fourth quarter of 2011 that it expected softer demand conditions for zircon in 2012. These conditions persisted longer than envisaged.

In a low demand environment, Iluka, as the major global zircon supplier, sought to reduce production in line with lower demand. This was based on the company's view that soft demand was primarily influenced by macroeconomic and business confidence factors, and not necessarily product pricing levels. Iluka's approach is to take actions which achieve the best possible margin outcome practicable, if necessary by ceding market share to smaller market participants, with the aim of recapturing market share with profitable and higher margin volumes when demand recovery occurs.

Correspondingly, Iluka has been prepared to build inventory of finished product and intermediate concentrate. The company also adjusted its mining approach at its Jacinth-Ambrosia mine in South Australia to mine in the lower grade part of the ore body.

Through the first eight months of 2012, this approach meant that weighted average zircon price received by the company remained stable at approximately US\$2,500/t (a level approximately 25 per cent higher than the 2011 weighted average zircon price). Sales volumes were low but, as indicated, Iluka assessed that lower pricing would not have resulted in a net volume/revenue benefit. Increased competition resulted in the zircon prices declining, initially to US\$2,000/t and then to approximately US\$1,500/t in the latter part of the year. This was reflected in a reduction in zircon pricing such that Iluka's weighted average fourth quarter pricing was US\$1,450/t.



## Managing Director's Review

### High grade titanium dioxide

The 2012 year was unusual in the high grade feedstock market. Iluka sold its major products of rutile and synthetic rutile unencumbered by old-style legacy contracts, which have been a feature of the mineral sands industry for many years. Some other producers are believed to have been obliged to supply under low priced legacy contract arrangements through 2012. This resulted in a multi-tiered pricing environment for high grade feedstocks, with Iluka's products generally commanding the highest prices.

In addition, it became apparent during the first half that chloride pigment inventories were building, in part influenced by a less robust than anticipated North American painting season and a reduction in chloride demand influenced by the availability of lower priced, Chinese sulphate pigment.

Under these conditions, pigment producers sought to reduce pigment inventories by lowering production. One means to achieve this is to operate pigment plants at lower capacity levels which typically results in the utilisation of less of the higher grade feedstocks, such as rutile and synthetic rutile, and correspondingly a higher proportion of lower grade chloride slag in the feedstock blend. This resulted in weak Iluka second half high grade titanium dioxide sales volumes and some erosion of pricing outcomes, even though weighted average year-on-rutile and synthetic rutile prices were higher.



Jacinth-Ambrosia, South Australia.

### 2012 financial performance

Lower mineral sands profitability reflected significantly lower sales volumes year-on-year, with combined zircon, rutile and synthetic rutile (Z/R/SR) sales volumes down 52.9 per cent to 488.9 thousand tonnes, compared to 1,038.1 thousand tonnes in 2011.

Higher average product prices year-on-year, despite a significant fall in prices received in the latter part of the third quarter and into the fourth quarter, resulted in revenue per tonne of Z/R/SR sold during 2012 of \$1,991 per tonne, 41.6 per cent higher than the corresponding 2011 figure of \$1,406 per tonne.

Mining Area C (MAC) iron ore royalty earnings were \$72.3 million (2011: \$88.1 million), including capacity payments of \$3.0 million (2011: \$1.0 million).

Operating cash flow for the year was \$368.7 million (2011: \$706.2 million), reflecting lower second half sales revenue associated with lower sales volumes for rutile and synthetic rutile.

Free cash flow of \$81.2 million was well down on the record \$589.6 million generated in the previous corresponding period, due mainly to lower mineral sands revenues and an increase in working capital due mainly to higher finished goods inventories.

Iluka successfully refinanced its debt arrangements during the year and established facilities of \$800 million, with a five year tenor.

Net debt at 31 December 2012 was \$95.9 million with a gearing ratio (net debt/net debt + equity) of 5.8 per cent, compared to net cash of \$156.7 million at 31 December 2011. Undrawn facilities at 31 December 2012 were \$718.2 million and cash at bank was \$54.3 million. Net debt at 31 January 2013 was \$90.0 million.

### Sustainability

Iluka's sustainability activities in 2012 included the following:

- a breakthrough in safety performance, through the company's Safe Production Leadership program. This program resulted in the total recordable injury frequency rate declining by 30 per cent year-on-year;
- the company's continuing commitment to diversity principles, with a Diversity Committee established under my Chairmanship;
- further progress on rehabilitation activities associated with the cessation of mining activities, with over 70 per cent more land rehabilitated in 2012 compared with the average over the previous four years; and
- Iluka's sponsorship of a foundation professorial Chair in Vegetation Science and Biogeography at the University of Western Australia.

## Outlook

Key in 2013 is the timing and pace of demand recovery. The continuation of a weak demand and lower pricing environment will obviously see a continuation of the weaker financial performance characteristics which were a feature of the second half of 2012. In entering 2013, it remained difficult to determine with confidence the nature and pace of demand recovery.

There are, however, several specific, positive, early indications for improved demand in 2013 for Iluka's main products.

The apparent resolution of the US 'fiscal cliff', the smooth transition of the Chinese leadership and a more sanguine view about events in Europe, combined with increasingly positive lead indicators, such as Chinese property sales and US housing commencements, may indicate that the low point of the current economic cycle has been reached. Risks, nonetheless, remain and prudence in planning is warranted.

For zircon, Iluka's January and February customer inquiries globally were the strongest in all main markets, except Europe, for many months. In Iluka's view, significant production adjustments, plus early signs of improved demand, mean that preconditions for a period of zircon price stability and potentially price recovery appear to be in place.

In the case of high grade titanium dioxide, demand in the first half of the year is still likely to be sluggish, as customers continue with low plant utilisation regimes while also working through remaining lower priced, long term contract materials. However, commentary from several North American pigment and paint producers indicates that they expect more normal demand and operating conditions to emerge as the year progresses, underpinned by a continued recovery in the United States housing market, which, together with reduced market availability of low priced legacy contract supply, would be a positive for demand for Iluka's high grade titanium products.

Notably also, recent industry announcements regarding production cuts are a positive for market dynamics. In Iluka's assessment, these could amount, on an annualised basis, to a zircon production reduction of approximately 35 per cent compared to industry production in 2011. In the case of high grade titanium dioxide, it could represent an approximate 20 per cent reduction.

Despite positive indications generally, risks remain in terms of both global economic performance and specific business conditions for the mineral sands sector and Iluka's planning seeks to take account of such risks and uncertainties. The company's production cuts and cost reduction measures are focussed upon maintaining the lowest possible unit cost given reduced operational activity levels, targeting finished inventory draw down, reducing overheads and capital expenditure, while maintaining the flexibility to respond to market recovery.

In response to lower demand, Iluka intends to reduce production and costs and has disclosed a number of production response initiatives across its operations. These are material and regrettably have come with a consequent impact on employment levels.

In the context of the 2012 year and with customers entering 2013 uncertain about the economic landscape for their businesses, Iluka's business planning approach has the following key features:

- targeting sales greater than production, with inventories progressively drawn down;
- reducing cash operating costs and other, non production cash costs, to enhance cash flow generation;
- reducing capital expenditure, while preserving growth options via the company's internally identified opportunities, a global exploration program and via carefully evaluated opportunities outside the mineral sands sector; and
- a continued focus on investment in market growth and market share initiatives, including the expansion of Iluka's global market presence, extended logistics capabilities and enhanced customer offers, including through product and technical development, as well as support for industry initiatives such as the Zircon Industry Association.

I would like to thank employees for their commendable efforts in challenging times.

I would also like to thank shareholders for their support and convey my continued appreciation to our customers and our contractors and suppliers. These all remain pivotally important relationships to Iluka.

**David Robb**  
Managing Director

# Sales and Production Volumes

## Sales 2012

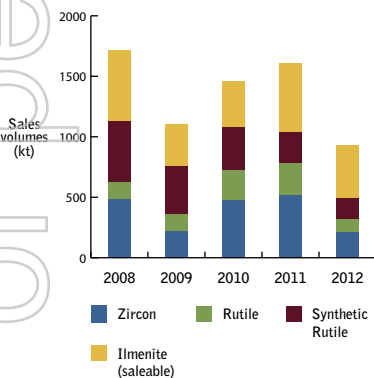
Iluka's 2012 sales volumes were adversely affected by the soft global market demand conditions detailed elsewhere in the Iluka Review. Year-on-year combined sales of Iluka's main products of zircon, rutile and synthetic rutile declined by 52.9 per cent compared with 2011 levels.

As shown in the five year historical sales volume chart, 2012 sales volumes in aggregate may reflect a cyclical low point in demand, with aggregate volumes lower than 2009, a year adversely affected by the global financial crisis. Zircon sales volumes for 2012 were 213.8 thousand tonnes (2011: 514.5 thousand tonnes). Rutile sales volumes were 105.5 thousand tonnes (2011: 265.9 thousand tonnes). Synthetic rutile sales volumes were 169.6 thousand tonnes (2011: 257.7 thousand tonnes).

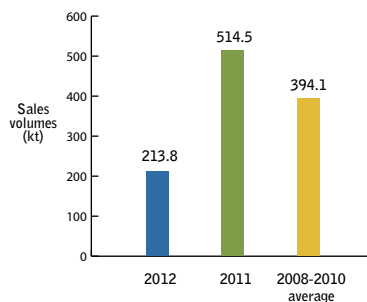
Ilmenite sales volumes for 2012 were 443.2 thousand tonnes (2011: 570.9 thousand tonnes). Ilmenite saleable volumes can vary depending on level of ilmenite which is utilised as part of feedstock for the company's synthetic rutile production. 2012 ilmenite sales included sulphate ilmenite product sourced from the Murray Basin. This material is typically sold into the China market.



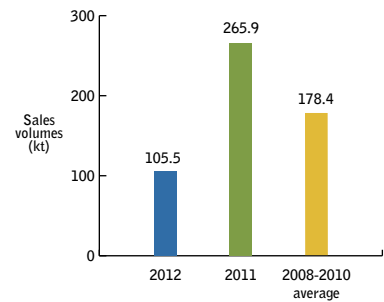
FIVE YEAR HISTORICAL SALES VOLUMES



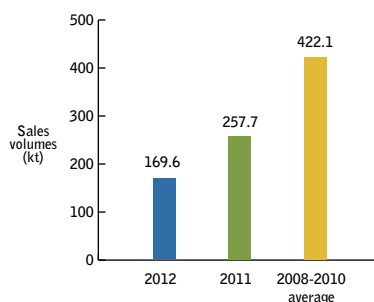
ZIRCON



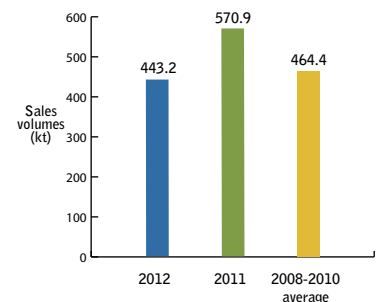
RUTILE



SYNTHETIC RUTILE



ILMENITE (Saleable)





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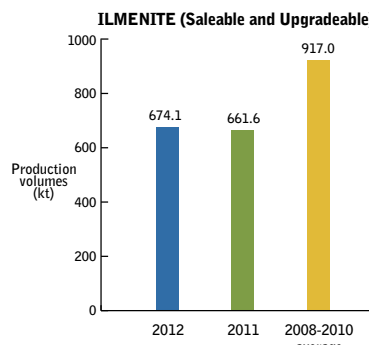
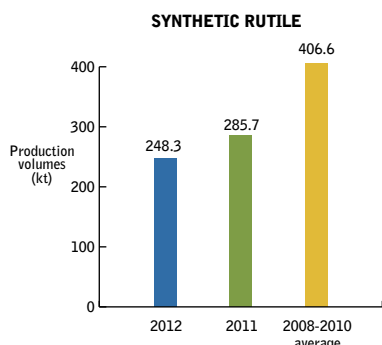
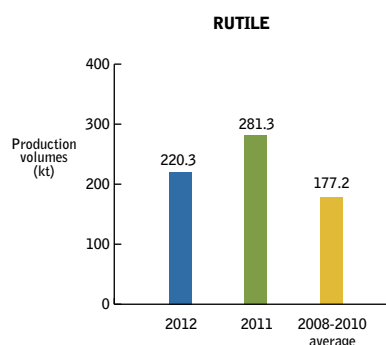
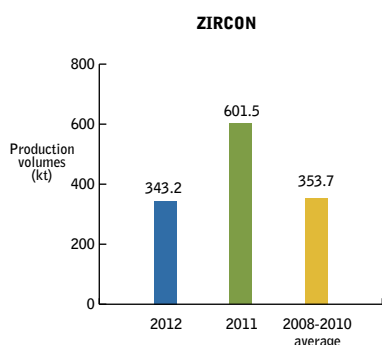
### Production 2012

Lower 2012 production levels reflect the weaker demand environment and efforts by Iluka to exercise production flexibility in light of these conditions.

Zircon production was 343.2 thousand tonnes (2011: 601.5 thousand tonnes). The lower production resulted mainly from Iluka's approach to flexing production at its Jacinth-Ambrosia operation, by moving to the low grade part of the ore deposit, and processing less heavy mineral concentrate.

Rutile production was 220.3 thousand tonnes (2011: 281.3 thousand tonnes). Lower rutile production reflected a number of factors: the planned move from the Kulwin to Woorack, Rownack and Pirro mine in the Murray Basin, which resulted in mining ceasing for approximately three months, and the operation of one mine in the Murray Basin in 2012, compared with three mines in 2011 (the Douglas and Echo mines came to the end of their economic lives in 2011).

Synthetic rutile production was 248.3 thousand tonnes (2011: 285.7 thousand tonnes). During 2012, Iluka operated two of its four synthetic rutile kilns. The largest kiln, synthetic rutile kiln 2, was operated on a reduced capacity basis in the second half in light of weaker second half demand. Synthetic rutile kiln 3 underwent a scheduled maintenance between September to November. Iluka idled its synthetic rutile kilns over the 2012 Christmas period, with synthetic rutile kiln 3 out of operation until market conditions warrant reactivation.



## Ore Reserves and Mineral Resources

The following table provides a summary of Iluka's Ore Reserves and Mineral Resources as at 31 December 2012. Iluka's complete Ore Reserves and Mineral Resources statement, reported in accordance with the JORC Code 2004, is available on pages 45 to 47 and on Iluka's website [www.iluka.com](http://www.iluka.com).

### Summary Ore Reserves

	Tonnes (millions)
Opening Reserves 2012	30.44
Production/depletions	(2.03)
New Ore Reserves/adjustments	0.57
Closing Ore Reserves	28.97
Ore Reserves net change	(1.47)

Numbers may not add due to rounding

### Summary Mineral Resources

	Tonnes (millions)
Opening Mineral Resources 2012	120.80
Production/depletions	(2.03)
New Mineral Resources/adjustments	3.94
Closing Mineral Resources	122.70
Mineral Resources net change	1.90

Ore Reserves decreased by 1.47 million tonnes of heavy mineral, following mining depletion and adjustments.

Mineral Resources increased by 1.90 million tonnes of heavy mineral, net of mining depletion and adjustments (sale, relinquishment, exploration discovery and development and write-downs).

Ore Reserves cover (Ore Reserves divided by annual depletion) is approximately 14 years at 2012 depletion rates, while the amount of Mineral Resources (which is inclusive of Ore Reserves) is approximately four times the Ore Reserve level.

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The material changes in Ore Reserves and Mineral Resources are described below.

### Eucla Basin, South Australia

Eucla Basin Ore Reserves decreased by 0.44 million tonnes of heavy mineral associated with mining depletion from the Jacinth deposit.

Eucla Basin Mineral Resources increased by 1.78 million tonnes of heavy mineral, inclusive of mining depletion at Jacinth of 0.45 million tonnes of heavy mineral, offset by the addition of a new resource, named Sonoran (2.20 million tonnes of heavy mineral).

Iluka is undertaking scoping studies for the Atacama and Typhoon resources, which are located in close proximity to the Jacinth-Ambrosia operation, while further evaluation of development options for the small but zircon-rich Tripitaka deposit is proceeding.

### Perth Basin, Western Australia

The Perth Basin Ore Reserves and Mineral Reserves decreased by 0.50 million tonnes of heavy mineral, inclusive of mining depletion of 0.49 million tonnes of heavy mineral from the Eneabba and Tutunup South operations.

Iluka recommenced mining and processing operations at Eneabba at the end of 2011 with the company announcing, early in 2013, its intention to again idle this mine due to market conditions. The Cataby deposit is subject to a pre-feasibility study which may lead to development of this large, chloride ilmenite and associated zircon ore body.

### Murray Basin, Victoria / New South Wales

Murray Basin Ore Reserves decreased by 0.77 million tonnes of heavy mineral due principally to mining depletion (0.77 million tonnes of heavy mineral).

Murray Basin Mineral Resources decreased by 1.35 million tonnes of heavy mineral due principally to mining depletion (0.77 million tonnes of heavy mineral) and the write-off of Mineral Resources for finalised mining operations (0.58 million tonnes of heavy mineral).

Iluka is undertaking a pre-feasibility study for the large rutile-rich Balranald and Nepean deposits in south western New South Wales.

### Atlantic Seaboard, Virginia / North Carolina, United States

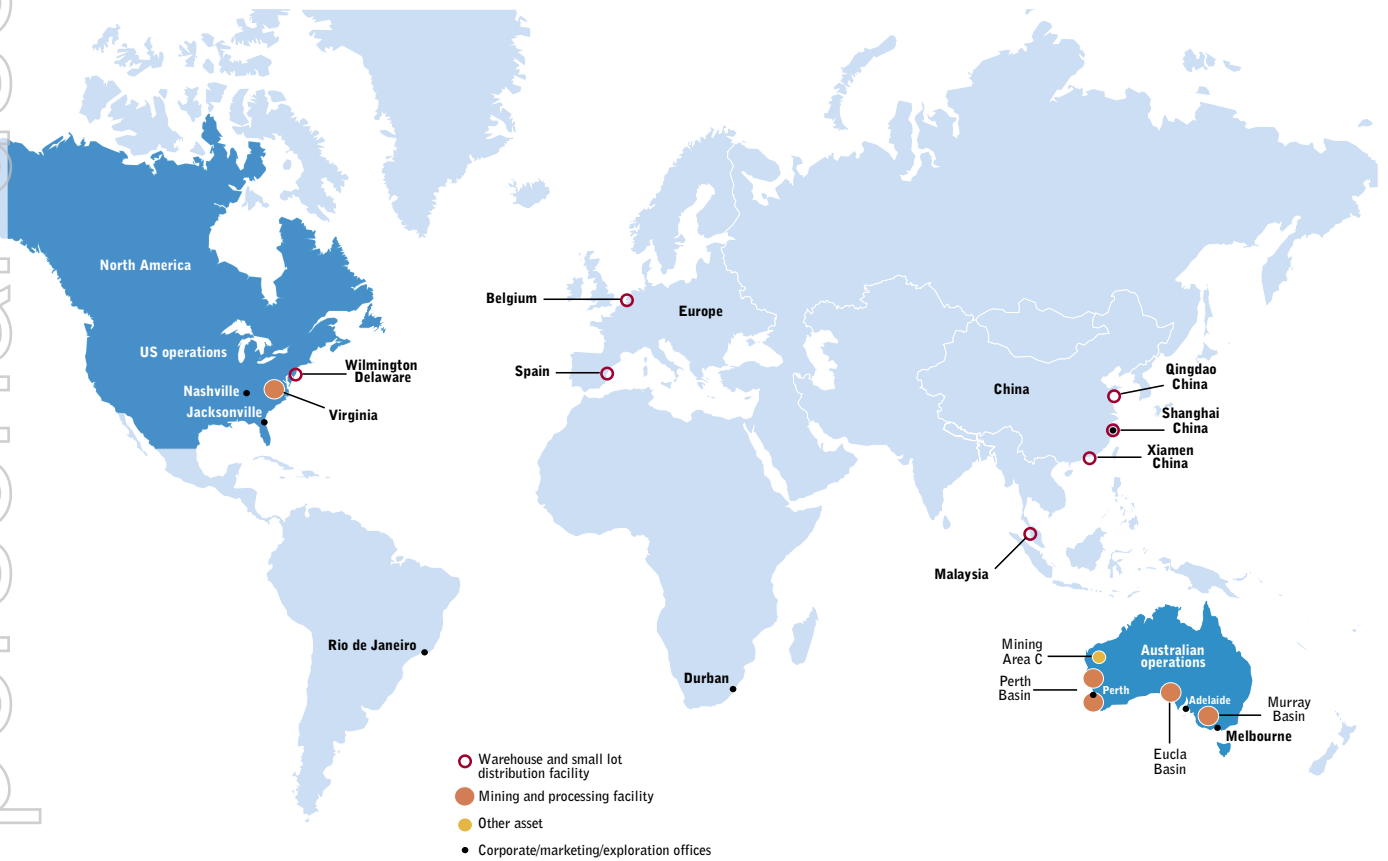
Iluka's United States' Ore Reserves increased by 0.25 million tonnes of heavy mineral, associated with mining depletion (0.32 million tonnes of heavy mineral) and adjustments of 0.58 million tonnes.

Mineral Resources increased by 1.98 million tonnes of heavy mineral, inclusive of mining depletion (0.32 million tonnes of heavy mineral) offset by adjustments of 2.31 million tonnes of heavy mineral from the addition of new resources for the Hickory and Brink deposits.



## Operational Overview

Iluka conducts mining, concentrating and processing operations in Australia and the United States. The company's operational base is highly integrated, allowing heavy mineral concentrate produced from various mines to be utilised in one or both of the company's mineral separation plants and for ilmenite produced from multiple sources to be upgraded to a higher quality, higher titanium dioxide product – synthetic rutile.



The integrated nature of the company's operations provides flexibility to adjust production in light of market conditions and to supply multiple products to defined specifications to customers on a reliable basis. Iluka's international marketing presence, including sales office locations and warehousing and logistics capabilities in China, Asia, Europe and North America, also enables the company to offer flexibility in product delivery arrangements to customers. Iluka operates an online sales portal for small lot sales to customers.

Australian mining operations are:

- Jacinth-Ambrosia in the Eucla Basin, South Australia – a major source of both the company's and global zircon supply;
- Woonack, Rownack and Pirro deposits in the Murray Basin, Victoria – Iluka's principal source of rutile supply, with a major zircon and ilmenite production stream; and
- Tutunup South and Eneabba (the latter idled in March 2013) in the Perth Basin, Western Australia – both mines are principally ilmenite supply sources for Iluka's synthetic rutile capacity.

Iluka has identified multiple development opportunities within its portfolio (three currently at feasibility stage) which provide additional production opportunities if market conditions and economic criteria warrant. Iluka operates two mineral separation facilities in Australia: at Hamilton, Victoria and Narngulu, Western Australia.

The company has four synthetic rutile kilns, two of which were operational during 2012, with the other two able to be reactivated if market conditions warrant. These kilns use ilmenite to produce various synthetic rutile products, with a titanium dioxide content between 85 to 95 per cent.

Iluka's United States mining operations are at Concord and Brink, Virginia, with a mineral separation plant at Stony Creek, Virginia.

Iluka's principal ports for export in Australia are Geraldton in Western Australia, where the company has dedicated storage and ship loading facilities, as well as the Port of Portland in Victoria. Other Australian ports are utilised, while the company typically holds finished product in multiple sites outside of Australia to facilitate expeditious and flexible delivery arrangements to customers. Iluka's Virginia production primarily services the US domestic market.

Iluka's Product and Technical Development area maintains a focus on technical work which is designed to enhance recoveries, facilitate innovative and more effective means to develop deposits (particularly satellite deposits), as well as develop products for new market segments. In this regard, work proceeded in 2012 on the potential development of a sulphate pigment feedstock, referred to as Acid Soluble Synthetic Rutile (ASSR).

The company maintains a close integration between its operational, sales and marketing and product and technical development functions, as this enhances operational planning outcomes as well as product development for customers, and new market penetration.



Woonack, Rownack and Pirro, Murray Basin, Victoria.

## Operational Overview

### Australian operations

Mining operations at the Jacinth-Ambrosia (Eucla Basin, South Australia) deposits were concentrated in a low grade part of the Jacinth ore body for most of 2012, in light of lower zircon demand. Iluka moved back to normal mining settings at the deposit in early 2013.

Heavy mineral concentrate produced at Jacinth-Ambrosia was stockpiled on site during 2012, with the company having the ability to continue to stockpile material in advance of processing to intermediate or final product, dependent on market conditions.

At the Narngulu mineral separation plant in Western Australia, lower levels of Jacinth-Ambrosia heavy mineral concentrate were processed. Feedstocks (both from Jacinth-Ambrosia and from Eneabba in the Mid West, Western Australia) were alternated through the two processing trains at Narngulu. This also had the benefit of producing more ilmenite for synthetic rutile feed production, while producing less zircon.

Mining operations ceased at the Douglas ore body in the Murray Basin, Victoria, at the end of January 2012. Mining at the first of the northern Murray Basin deposits, Kulwin, also ceased in mid-February, as planned, with the relocation of the mining and processing equipment to the Woorneck, Rownack and Pirro group of deposits. Commissioning of Woorneck, Rownack and Pirro commenced in mid April, with heavy mineral concentrate production in early May ahead of schedule and within budget. The production on site of wet high intensity magnetic separation ilmenite commenced in September. Plant alterations and installation of additional equipment at the end of the year allowed Iluka to produce a combination of sulphate and chloride ilmenite, available for sale or for use in synthetic rutile upgrading. This represents the commercialisation of a significant quantity of ilmenite within the deposit previously considered to have no commercial value.

Mining at Eneabba continued through 2012, after recommencing in December 2011, with processing of Eneabba sourced heavy mineral concentrate at the Narngulu mineral separation plant commencing from the first quarter of 2012.

The Narngulu mineral separation plant was upgraded to accommodate an additional 300 thousand tonnes of Eneabba heavy mineral concentrate.

Mining operations at Tutunup South in the South West of Western Australia continued during 2012. This mine is an ilmenite feed source for synthetic rutile kiln 2. Iluka operated its main kiln, synthetic rutile kiln 2, in the South West of Western Australia at a reduced feed rate of approximately 60 per cent of capacity. This was consistent with reducing high grade feedstock production, given lower demand in the second half of the year. Iluka also deferred its planned recommencement of its synthetic rutile kiln 1 (the third of its four kilns) from the fourth quarter of 2012. A trial parcel of Virginia ilmenite was processed through synthetic rutile kiln 3 in the Mid West. Preliminary results indicate a high titanium dioxide grade is achievable along with other favourable product characteristics.

Iluka sells iron oxide tailings from its Western Australian operations and during 2012 shipped approximately 200 thousand tonnes to customers.

### United States operations

Mining operations in Virginia in 2012 included successfully completing major mining unit moves at both sites (Concord and Brink). These moves enabled a transition from the historically higher grade areas of mineralisation, to shallow and lower grade mining areas identified through the re-optimisation of existing mineral leases. Historic mineral recoveries have been maintained from the lower grade material through the concentrator plants, and upgrades at the mineral separation plant have further improved product recovery.

Upgrades to the mineral separation plant have also enabled the production of higher quality, low alumina ilmenite, and the efficiency of the mineral separation process has also been increased through improvements to the plant temperature control system. The plant continues to produce one of the world's highest quality zircon products.

A definitive feasibility study was completed for the Hickory project, a potential third mine and mineral concentrator located 19 kilometres west of the Stony Creek mineral separation plant. The project has moved to an initial execution phase, which entails completion of detailed engineering design and construction plans, detailed mining plans and securing of all permits in 2013. A pre-feasibility study has also been progressed for a large chloride ilmenite deposit located in Aurelian Springs, North Carolina, approximately 90 kilometres south of Stony Creek. Current plans are to relocate the Concord mining unit and concentrator plant to Aurelian Springs in the first quarter of 2015. A definitive feasibility study is planned to commence in 2013 to complete detailed engineering design and secure the required operating permits.



## Iluka operations – 2012 and 2011 production levels

Production	2012	2011
	kt	kt
<b>Australian operations</b>		
<b>Eucla / Perth Basins</b>		
Zircon	158	323
Rutile	50	56
Ilmenite saleable	87	172
Ilmenite upgradeable	204	102
Synthetic rutile	248	286
<b>Murray Basin</b>		
Zircon	136	218
Rutile	170	225
Ilmenite saleable	96	–
Ilmenite upgradeable	72	99
<b>Australian operations total</b>		
Zircon	294	541
Rutile	220	281
Ilmenite saleable	183	172
Ilmenite upgradeable	276	202
Synthetic rutile	248	286
<b>United States operation</b>		
Zircon	49	60
Ilmenite saleable	202	288
Ilmenite upgradeable	12	–

Note: Numbers are rounded to nearest whole number.

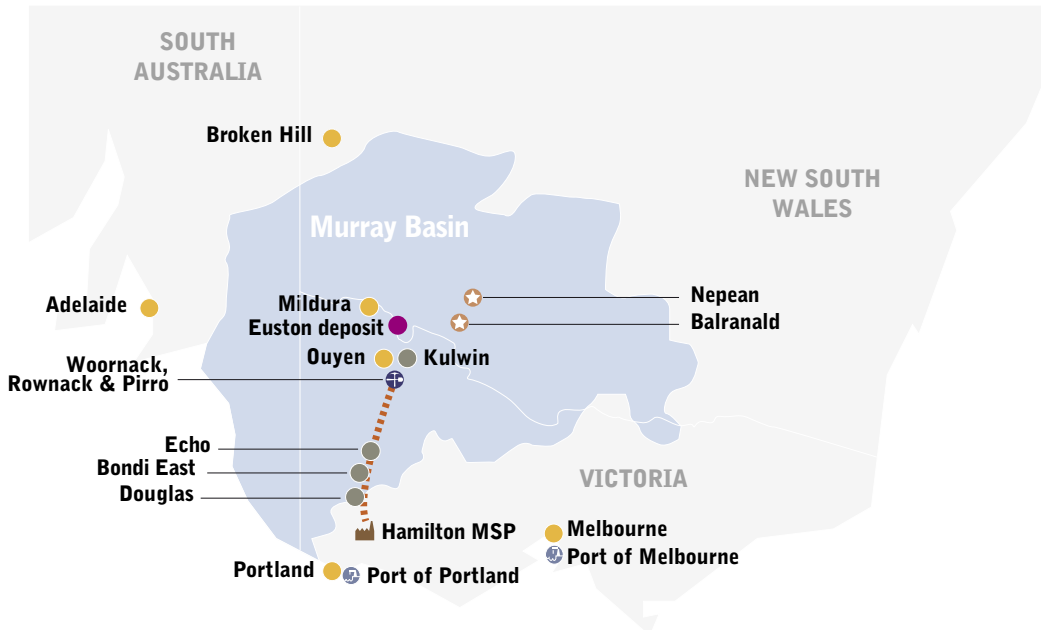
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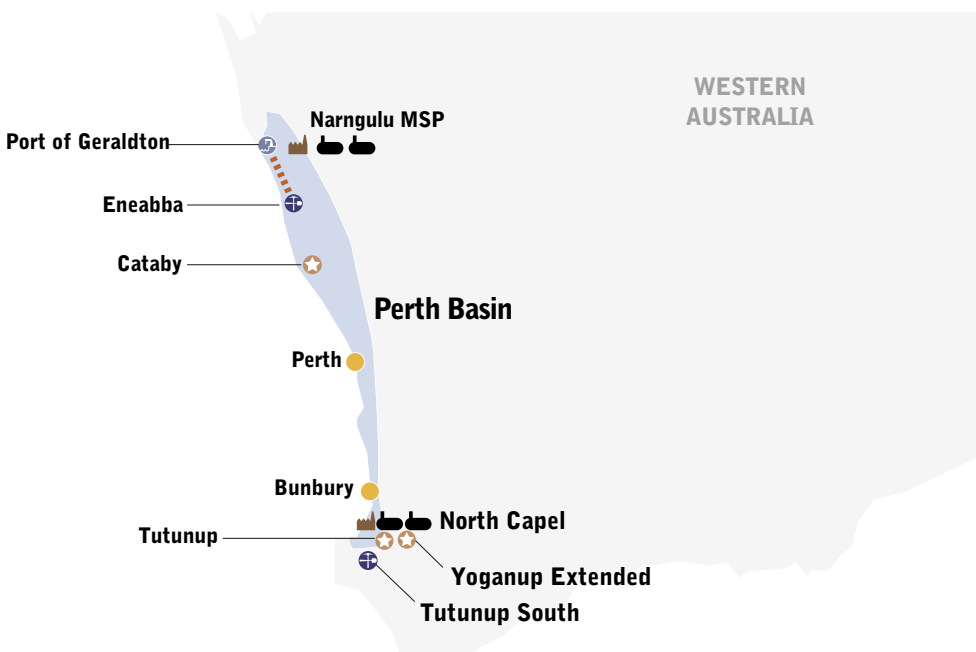
# Operational Overview

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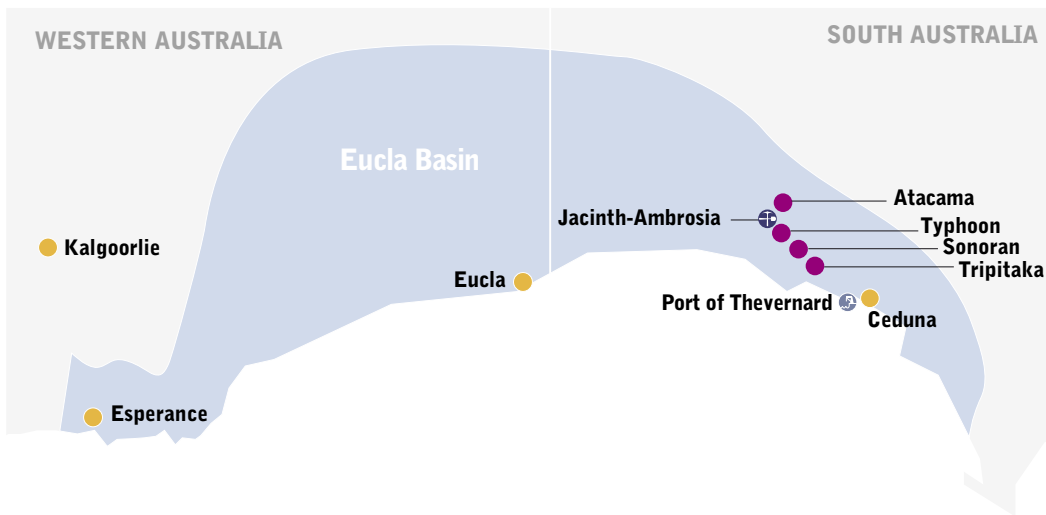
## Murray Basin, Victoria / New South Wales



## Perth Basin, Western Australia



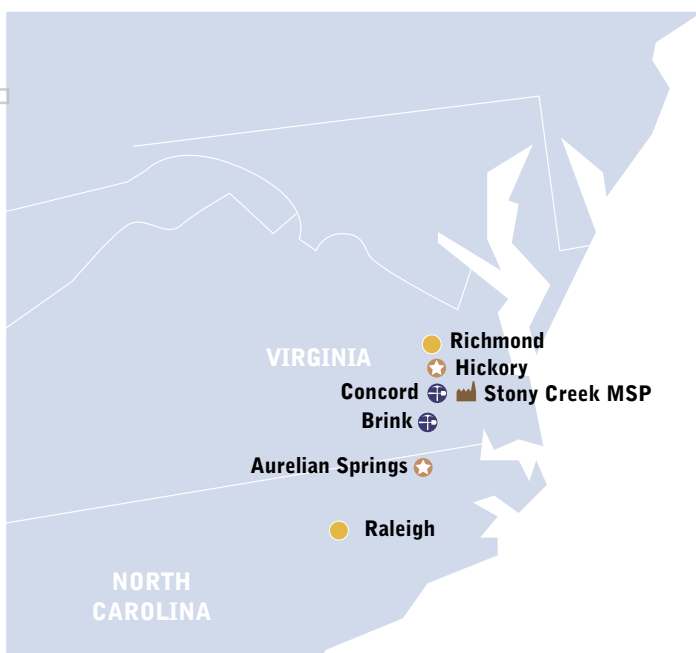
Eucla Basin, South Australia / Western Australia



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Atlantic Seaboard, Virginia / North Carolina, United States



**LEGEND**

- Port
- Mine
- Mineral separation plant
- Synthetic rutile kiln
- Proposed mine site
- Heavy mineral deposit
- Rail (capability)
- Road
- Former mine site



## Exploration

During 2012, Iluka significantly increased its exploration focus outside of Australia, with drilling programs undertaken in the United States and Brazil and early stage reconnaissance carried out in Africa and Asia. In addition to exploration offices in Perth and Adelaide, Iluka now has offices in Nashville in the United States, Rio de Janeiro in Brazil and Durban in South Africa.

While Iluka will continue to explore in Australia, the Perth, Eucla and Murray Basins are increasingly mature mineral sands exploration provinces, resulting in the need to accelerate exploration activities in new areas elsewhere in Australia and internationally.

### Eucla Basin, South Australia

Iluka holds the majority of exploration tenements in the Eucla Basin in the same region as the zircon-rich Jacinth-Ambrosia mineral sands operation. Iluka's tenements cover an area of approximately 38 thousand square kilometres and account for approximately 50 per cent of Iluka's total tenement holdings. Iluka's substantial tenement holding covers the prospective margin of the Eucla Basin in South Australia.

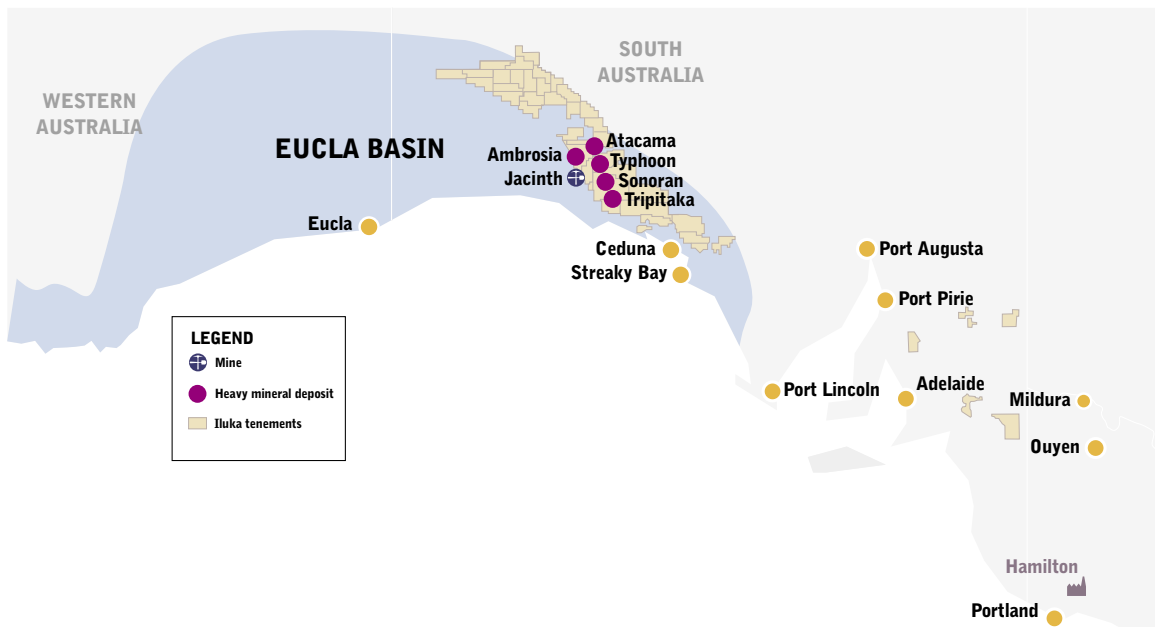
The company's current mineral resource inventory in the Eucla Basin is 20.1 million tonnes of heavy mineral including a mining depletion of approximately 1.9 million tonnes of heavy mineral from the Jacinth-Ambrosia operation. The original mineral endowment for the Eucla Basin, taking mining depletion into account, is 22.0 million tonnes of heavy mineral. In the order of 95 per cent of the total heavy mineral resources discovered in the Eucla Basin is within 15 kilometres of the Jacinth-Ambrosia mine site.

2012 exploration activity in the Eucla Basin included:

- upgrading of the Typhoon deposit to measured resource category, delineation drilling over the Tripitaka deposit to indicated status and delineation drilling at the Sonoran deposit to an inferred status. These extensions, combined with additional resources identified as part of the enhanced production project, have resulted in a 10 per cent increase from the 2011 resource position for the Eucla Basin (net of mining depletion);
- brownfield exploration drilling within 15 kilometres of Jacinth-Ambrosia accounted for approximately 15 per cent of total drilling and resulted in delineation of additional heavy mineral at the Atacama deposit;
- over 136 thousand metres of drilling on the Eucla Basin tenements with 40 per cent of that drilling on greenfields targets. Greenfields exploration drilling primarily focussed on areas north of the Atacama deposit, the Bay of Plenty, east of the Mojave prospect and the Maralinga-Barton Range tenements north of the trans Australian railway line; and
- completion of a detailed aeromagnetic/radiometric survey over an area of 700 square kilometres. This survey has identified gravity and magnetic anomalies with potential for base metals. First pass reconnaissance drilling was completed late in the year on areas approved for drilling. The results of this drilling will be followed up in 2013.

In 2013, Iluka will continue exploration in the Eucla Basin with follow up drilling on a number of mineralised targets identified in 2012.

### Eucla Basin, South Australia



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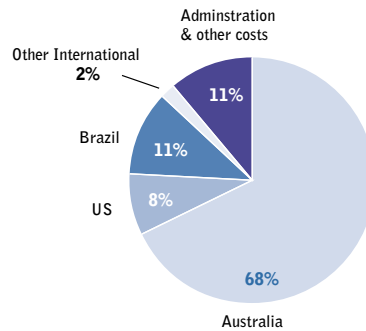
### Murray Basin and Eastern Region

Iluka's second main area of current exploration commitment is on the company's Murray Basin tenement holdings across Victoria, eastern South Australia and into the south west portion of New South Wales; a tenement holding area of approximately 20 thousand square kilometres. Over 70 thousand metres of drilling on Murray Basin tenements was completed with 60 per cent focussed on greenfield activities.

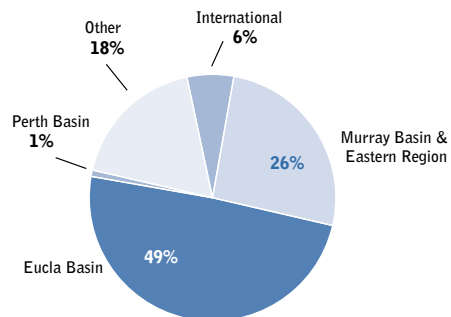
The 2012 exploration activities included:

- exploration in Victoria which was focussed along the southern margin and in the central area of the Murray Basin to test new areas where Iluka is seeking to locate stratigraphy suitable for hosting mineral sands;
- greenfield exploration was undertaken to assess new targets in south eastern South Australia along the western margin and central portions of the Murray Basin;
- greenfield exploration also continued in the north west portion of the Murray Basin in New South Wales;
- brownfield exploration was undertaken in the region surrounding the Balranald deposit to identify additional heavy mineral occurrences; and
- mineral resource delineation programs continued on both the Nepean and Balranald deposits as part of studies for the potential development of these large rutile-dominated deposits. Additional delineation programs were completed at the Woorneck, Rownack and Pirro sites.

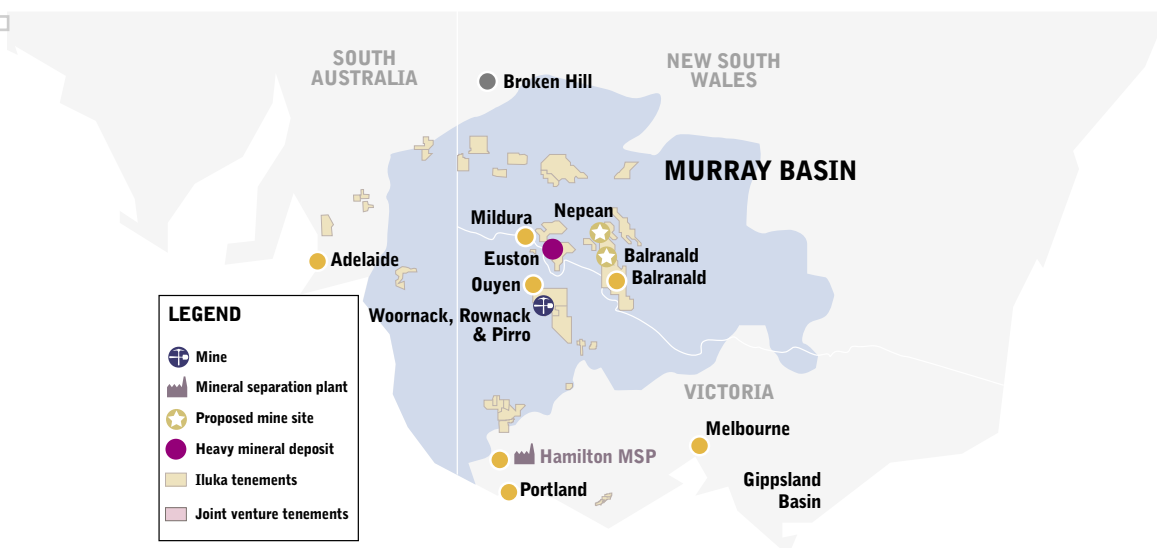
**EXPLORATION EXPENDITURE 2012**  
\$34.4 million



**ILUKA TENEMENT POSITION - 31 DECEMBER 2012**  
Total 76,925km<sup>2</sup>



### Murray Basin and Eastern Region



## Enhanced Production Project

Iluka continues to assess its ability to enhance its production profile, or extend the economic life of deposits, by the development of new deposits within its portfolio. The company undertakes this through what it refers to as the Enhanced Production Project.

Work undertaken during 2012 was focussed on progressing 13 potential mineral sands opportunities to pre-feasibility stage. The projects identified represent Mineral Resources or Ore Reserves additions within the existing Iluka portfolio and, in most cases, it is expected that development approaches may be able to make use of existing infrastructure. Three of the opportunities are in the United States, and the remainder in Australia. The increased project development workload has been managed internally and management of the various studies and subsequent implementation is underway. Some of the projects, such as Balranald and Cataby, have project teams in place and are well advanced at pre-feasibility assessment stage.

Iluka's internal development options may enable Iluka to either increase its rutile and zircon production or extend production profiles. Associated with additional zircon and rutile production, additional chloride ilmenite availability would be expected, to further support synthetic rutile operations. The assessment of sulphate ilmenite production and processing options has also occurred during 2012 and downstream beneficiation assessment of these products is underway.

Based on initial assessments, it can be expected that Iluka's production response options may be: capital-efficient (given the ability to utilise existing infrastructure); provide both short and medium to longer term production opportunities; and involve relatively low-to-moderate execution risk.

The pursuit of any of the internal options will occur in the context of key financial metrics, as well as market conditions.

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Iluka has three potential tie-in satellite deposits within close proximity to the Jacinth-Ambrosia operation.



## Product and Technical Development

Iluka's Product and Technical Development function, along with the company's marketing and exploration activities, represent an investment in the future of the mineral sands sector and Iluka's role within it.

Principal areas of focus during 2012 included:

- the continued development of new synthetic rutile products using ilmenites from a range of Iluka's mines, both in Australia and the United States. Most of the emphasis continued on the commercialisation of Acid Soluble Synthetic Rutile (ASSR), which is a high grade synthetic rutile targeted to the sulphate pigment market. After plant trials on ASSR in 2011, it was decided in 2012 to use a pilot plant to finalise the technical study of ASSR production. Work progressed in 2012 to reconfigure an existing third party pilot plant kiln for Iluka's requirements. Testing on this pilot plant is expected to occur in 2013;
- trial work on the use of Iluka's Virginia ilmenite to make a superior synthetic rutile product for the high-end titanium dioxide pigment and titanium metal markets. Successful full scale plant trials were conducted to produce a synthetic rutile with plus 94 per cent titanium dioxide content with low impurity levels from a 100 per cent blend of Virginia ilmenite; and
- zircon product development, the key focus area of which was the ongoing assessment of modernisation, thrifting and substitution (MTS) associated with the consumption of zircon in ceramics. Given the large size of the Chinese ceramics industry, most the emphasis was placed on trends within this market. Iluka worked with customers, tile manufacturers, equipment suppliers and industry specialists to better understand the impact of MTS trends on global zircon demand. In addition, Iluka worked with a variety of industries to explore new and growing applications for zircon or zircon based derivatives. A number of opportunities were identified, which will be progressed in 2013.

Iluka was instrumental in the establishment of the Zircon Industry Association (ZIA) – an industry group made up of both zircon sand suppliers and downstream industry users. The purpose of the ZIA is to represent and promote the interests of the zircon industry.



Iluka plans to conduct further new product test work at its synthetic rutile kilns in 2013.

## Mineral Sands Market Conditions

Relative to 2010 and 2011, periods of higher cyclical demand, 2012 displayed the characteristics of a period of cyclical weakness across both the main product suites.

Mineral sands market conditions were influenced by a combination of factors relating to weak global economic conditions, the influence of policy settings in specific countries (especially those related to the property sector in China), and inventory stocking and destocking trends (at the finished ceramic end of the chain in China and for chloride pigment for high grade titanium dioxide products).

All geographical markets and all end-market applications, although to varying degrees, displayed weaker demand than in 2011 and in relation to a more typical demand year. For example, the export markets of European ceramic manufacturers were adversely affected by the aborted 'Arab Spring' as well as restrictions on economic transactions with Iran, a major tile consuming nation. Non-ceramic applications of zircon, such as zirconium chemicals, displayed more robust demand than the ceramic sector, but even here demand was more subdued based on global economic conditions.

Zircon demand in China was adversely influenced by the adoption of modern porcelain tile manufacturing techniques - techniques which have been in existence for an extended period in other tile manufacturing centres, such as Spain and Italy. This technological adaptation led to a structural change in zircon usage in China, the volume impact of which was most pronounced in 2011 with a lesser assessed impact in 2012. In Iluka's assessment, this technological change in tile making in China has now been largely worked through, as have other thrifting and substitution practices.

In titanium dioxide markets, the need for chloride pigment producers to work down pigment inventories in the second half meant that rutile and synthetic rutile demand was materially weaker than was anticipated at the beginning of 2012. Pigment plants running at lower than normal capacity utilisation rates had a direct, adverse impact on the demand for higher grade feedstocks, such as rutile and synthetic rutile in the second half of 2012. The preference for lower grade titanium dioxide feedstocks, such as chloride slag, and its associated availability under legacy contractual and lower pricing arrangements, compounded the weak demand conditions for Iluka's products. The niche markets for titanium dioxide usage, such as titanium metal and the welding sector, were not immune from global economic factors, with demand and pricing outcomes in these sectors also weakening.

Iluka's mineral sands pricing outcomes for 2012 are shown in the table below.

### Lead indicators

The Chinese and United States construction and housing sectors are significant sources of demand for zircon and titanium dioxide. Growth of these sectors slowed in 2012, as was the case in 2008 and 2009. However, positive signs of a recovery were evident in late 2012 as demonstrated in the following lead indicator charts.

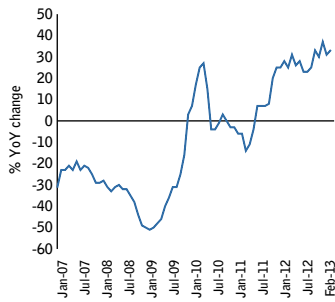
### Iluka's Mineral Sands Pricing

	6 mth to Jun-12	Dec-12 Quarter	6 mth to Dec-12	12 mth to Dec-12	12 mth to Dec-11
<b>Weighted average pricing US\$/t FOB</b>					
Zircon	2,490	1,449	1,856	2,080	1,886
Rutile	2,505	2,094	2,305	2,464	1,174
Synthetic rutile	1,950	1,463	1,465	1,771	878
<b>Average Z/R/SR price received US\$/t FOB</b>	<b>2,296</b>	<b>1,478</b>	<b>1,772</b>	<b>2,056</b>	<b>1,453</b>

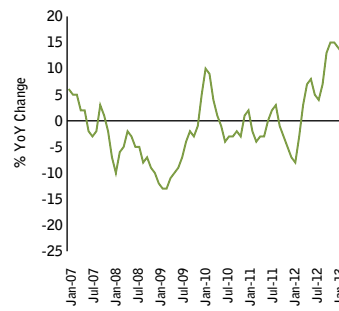
Iluka's average zircon starting price in 2013 was ~ 15 per cent below December quarter 2012 levels. Iluka's average rutile starting price in 2013 was ~ 30 per cent below December quarter 2012 levels.

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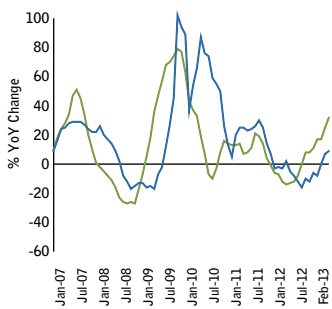
**US NEW HOMES STARTED  
SEASONALLY ADJUSTED**



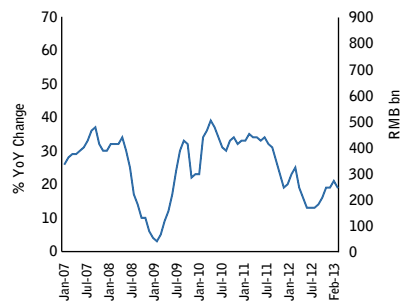
**US NEW HOUSE PRICES**



**CHINA FLOOR SPACE**



**CHINA REAL ESTATE INVESTMENT**



FLOOR SPACE SOLD

FLOOR SPACE STARTED

Source: CEIC



Major end uses of zircon include ceramics, such as floor and wall tiles, and sanitary ware.



## Sustainable Development

Iluka believes being a sustainable and responsible company contributes to the delivery of the company's primary objective: to create and deliver value for shareholders. In practice, this means consideration of all environmental, social and economic implications prior to and throughout the life of operations. The company believes this is a central component of its licence to operate and will underpin the future growth of the company.

Iluka's safety, health, environmental, people and stakeholder performance is overseen by the Board and is supported by policies and procedures which define how the company will deliver its business objectives and the framework within which managers, employees and subcontractors are expected to work. Iluka's senior management team is accountable for delivering sustainability objectives.

The following activities and reporting measures are considered the key areas of focus for the company, and those deemed most relevant to stakeholders. While a range of other activities form part of Iluka's approach to sustainable development, these are not reported in this document.

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Jacinth-Ambrosia seed storage and germination, South Australia.

## People

Iluka seeks to build and maintain a diverse and sustainable workforce of talented people reflecting the communities in which the company operates.

The company encourages employee achievement through the principles of accountability, commerciality and engagement, and strives to maintain a work culture that reflects its values of commitment, integrity and responsibility. This includes a high standard of health and safety behaviour and the development of individuals, leaders and teams to achieve extraordinary performance.

In response to both changing market conditions and long term growth opportunities during 2012, the company focused on five key people areas:

- workforce capability planning;
- skill and leadership development;
- diversity;
- people management technology; and
- employee engagement.



Exploration activity, Eucla Basin. Iluka uses helicopter fly-in-fly-out operations given remote locations and to minimise environmental damage from vehicular movements.

### Workforce profile

During 2012, Iluka directly employed approximately 1,100 people (of which 20 per cent were female), plus approximately 1,500 contractors.

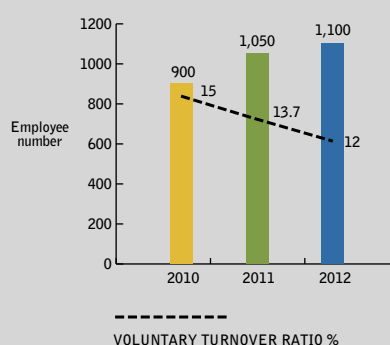
Approximately 80 per cent of Iluka's direct workforce was employed in Australian locations across Western Australia, South Australia and Victoria, while around 20 per cent were located internationally, in locations including Virginia, United States, Shanghai, China and South America.

### Employee engagement

An employee engagement survey was conducted in 2012, achieving a response rate of 80 per cent. Held every two years, the survey measures employee perceptions relating to business alignment, sustainability, employee achievement (including diversity), leadership and job and employer engagement.

The overall employee engagement level in 2012 of 63 per cent was above industry average rates, with job engagement at 70 per cent and employer engagement at 75 per cent. These results are industry leading when benchmarked against similar sized Australian organisations within the mining and quarrying sectors. Iluka also performed above the overall average benchmark in all survey categories.

3 YEAR EMPLOYEE NUMBERS



## People

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Hopetoun rail loading facility, Victoria.

### Diversity

The company respects and encourages workplace diversity and strives to provide a workplace that is free of harassment and discrimination. To help achieve this outcome, a Diversity Committee operates to promote awareness of diversity, integrate workplace diversity principles into company activities, and implement a flexible workplace culture which assists employees to balance their responsibilities.

Iluka's diversity activities focused on:

- development of programs to attract, develop and retain employees across various age ranges;
- creation of sustainable employment opportunities for people with disabilities;
- an increase in indigenous employment and training through partnerships with local and national indigenous groups; and
- participation and advancement of women in various roles and levels in the workplace.

### Key achievements

- Entry-level technical capability increased significantly, with the appointment of seven apprentices, three trainees, four vacation students and four graduates.
- Employment of people with a disability increased from one in 2011, to five in 2012. In some cases, jobs were redesigned to provide tailored employment options e.g. use of sign language with fellow colleagues.
- A total of 16 additional indigenous people were employed in 2012, five of which were through Iluka's collaborations with local native title claimant groups and The Clontarf Foundation. A further three indigenous people undertook work experience in the South West of Western Australia.
- Three females were appointed to senior manager positions, and one female was promoted to an executive management position reporting to the Managing Director (in late 2012). A Standards of Behaviour Program was also implemented at the Narngulu mineral separation plant in Western Australia to encourage the attraction of female operators. A total of nine females were hired and provided with accelerated development training to ensure appropriate skill levels.

### Workplace Gender Equality Agency profile

Position	Women		Men		%		Average salary \$ (TFR)	
	FT	PT	FT	PT	Women	Men	Women	Men
Board	1	0	5	0	17	83	125,000	125,000
Senior executives	0	0	9	0	0	100		539,167
Senior managers	7	0	32	1	18	82	214,714	261,924

FT= full time, PT= part time.

Chairman and Managing Director salaries are excluded.

Information extracted from Iluka Resources 2011-2012 EOWA Report.



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A review of the Australian Government's Employer of Choice for Women accreditation criteria was undertaken during the year and a preliminary plan for future accreditation was developed. Further refinement of the plan will be completed in 2013 following the results of an internal qualitative gender diversity survey.

A gender equity pay audit was completed for the second year to review individual employee comparisons. A small percentage (less than 1 per cent) of employees were identified in roles requiring action to be taken to address remuneration anomalies.

Iluka provides eight weeks paid parental leave to female employees, and two weeks paid parental leave to male employees. A voluntary Stay in Touch program provides regular communication and development opportunities for employees on parental leave.

### Employee volunteering

In 2012, Iluka introduced two days paid volunteer leave per annum for all full time employees (or pro rata equivalent), where employees are entitled to work with a community group or charity of their choice.

Since the introduction of the initiative, approximately 175 employees, across most locations, completed 220 volunteer days. Activities included individual and team volunteering with aged care facilities, youth and indigenous groups, animal shelters, homeless organisations and conservation groups.

## CASE STUDY



Narngulu, Perth Basin, Western Australia.

### Gender diversity initiative at Narngulu, Western Australia

The Narngulu mineral separation plant in Western Australia historically recruited operational personnel based on relevant work skills and applicable experience, an approach that directly resulted in a small candidate pool and appointment of successful applicants aligned with a traditional demographic profile for operator roles (males with five years plus experience).

The recruiting approach at Narngulu was adjusted to focus on both longer term and short term business needs, and increase diversity across the operation. Iluka believes a diverse workforce contributes to different styles of leadership, varied skill sets, and a broadening of behaviours, each contributing to a high performing work culture.

It was established that in addition to work skills and experience, the recruitment strategy should be centred on individuals' values and standards of behaviour. Advertising and selection processes, including interviews, were therefore modified to target values that were aligned with Iluka's core values of commitment, integrity and responsibility, facilitating the potential recruitment of a more diverse yet capable cohort of new employees.

The training program in place at Narngulu also provided a stable platform from which to fast-track the development of new, less technically skilled employees.

The change in recruiting focus improved gender and age diversity at the operation. Female employees now represent approximately 10 per cent of the operational team, an increase of 100 per cent over the past three years. An increase in the number of employees under the age of 30 years across the operation has also been achieved.

## Safety and Health

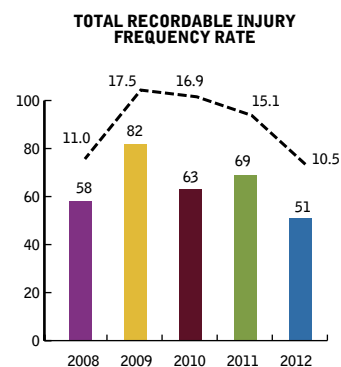
Iluka is committed to high levels of environmental, health and safety performance.

### Safe Production Leadership program

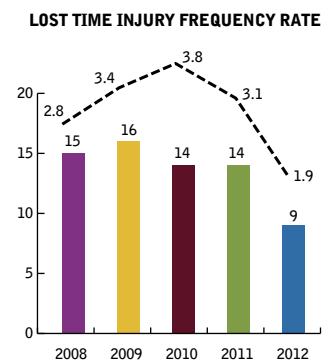
The Safe Production Leadership program was implemented in Iluka's Australian operations in April 2011. This program was designed to achieve a fundamental improvement in Iluka's safety performance and has involved development of safe production plans at each of Iluka's sites. The program continued in 2012, focusing on functional support areas, such as exploration and corporate functions. The performance metrics of lost time injury frequency rate and total recordable injury frequency rate since the implementation of the SPL program highlight the advances made as a result of the program.

### Contractor management

Contractors are an integral part of Iluka's business, and in 2012 accounted for 56 per cent of the recorded hours worked. A project aimed at improving the way Iluka manages its contractors was launched during the year, and included standardising contractor pre-qualification processes, validation of the environment, health and safety performance of approved vendors, auditing the compliance of vendors with Iluka's sustainability requirements and a review of the approved vendor list. The project commenced in Victoria and will continue in other locations throughout 2013.



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TOTAL RECORDABLE INJURY  
FREQUENCY RATE



-----  
LOST TIME INJURY FREQUENCY RATE

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## Performance

Iluka manages its activities via its Environment, Health and Safety Management System, constructed around 12 standards and 5 major risk procedures.

The company uses a number of primary indicators to monitor safety performance: lost time injury frequency rate (LTIFR), severity rate, medical treatment injury frequency rate (MTIFR) and the total recordable injury frequency rate (TRIFR).

In 2012, Iluka improved its safety performance across a range of metrics. However, despite a year-on-year improvement, the severity rate result of 46.7 fell short of the company's internal target of 39.2. Iluka's TRIFR reduced from 15.1 at the end of 2011 to 10.5 in 2012, a 30 per cent reduction. This was an improvement on the 2012 target of 10.6. Similarly, the LTIFR for Iluka reduced from 3.1 at the end of 2011 to 1.9 in 2012, a 39 per cent reduction.

The number of lost time injuries, medically treated injuries, recordable injuries and minor injuries also reduced across the company. The increase in the number of first aid injuries recorded, measured against the decline in the number of more serious incidents, reflects an increased focus on reporting rather than a change in the risk profile.

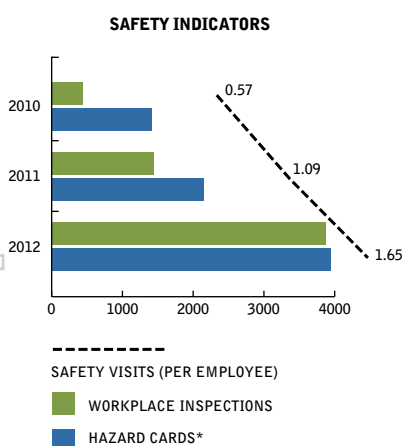
For further statistical information, refer to page 48.

## Occupational health

During 2012, Iluka's occupational health and hygiene management framework was audited by external consultants. The review reinforced Iluka's risk based approach for hygiene exposure and health monitoring, ensuring consistency within operations and business units under an overarching corporate management plan. The consultants were engaged to conduct a review of potential exposure risks within all aspects of Iluka operations, with the findings prioritised for assessment, monitoring and control in 2013.

Monitoring activities during 2012 focussed on the following key risks:

- continuous and peak noise;
- inhalable and respirable dust;
- ionising radiation; and
- Legionella bacteria.



\* A hazard identified in the workplace and recorded in the EHS Management System.

## Environmental Management

Iluka undertakes mining and processing activities on land that ranges from remote regional reserves to operations in close proximity to populated areas.

Iluka's approach to environmental management is based on the identification, assessment and treatment of risks and protection of the natural environment. A number of internal standards govern how potential environmental impacts are managed throughout all phases of the operation, from exploration through to closure. The individual requirements of each site are also considered and site specific procedures and work instructions are developed in compliance with these standards. Operational sites are audited for compliance with Iluka's standards on a regular basis.

### Performance

In order to improve the resolution of environmental incidents, the definitions for these incidents were reviewed during 2012 and a new, more uniform and consistent system implemented. The new definitions have been applied to the 2011 data in order to allow more valid year-on-year comparisons.

During 2012, a total of 1,042 environmental incidents were recorded, of which 76 per cent were classified as level 1 incidents - the lowest impact category - and a further 18 per cent as level 2 incidents. The number of incidents considered significant (level 3 and above) decreased from 85 incidents in 2011, to 59 in 2012. The company did not record any environmental breaches during the year which may have been subject to a financial penalty.

Overall, approximately 40 per cent more environmental incidents were reported in 2012 than 2011. This, in large part, reflects internal efforts to ensure more stringent monitoring and reporting, even though such incidents were minor. The shift was towards less significant incidents than the previous year.

### Environmental incidents

Indicator level	2010		2011		2012	
Level 1	652	(81.8%)	481	(64.5%)	796	(76.5%)
Level 2	139	(17.5%)	180	(24.1%)	187	(18.0%)
Level 3	5	(0.6%)	82	(11.0%)	43	(4.1%)
Level 4	1	(0.1%)	3	(0.4%)	16	(1.5%)
Level 5	0	(0%)	0	(0%)	0	(0%)
Total	797		746*		1,042	
Target (level 3 & above)	N/A		N/A		85	

\* 51 of the 2011 incidents could not be reclassified due to lack of information.

All data includes contractor activities.



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## Energy

Most of the energy Iluka consumes results from the operation of the company's synthetic rutile kilns, two of which were in operation throughout most of 2012. To mitigate this impact and minimise carbon dioxide emissions and costs across Australian operations, the company identifies and reports on all energy efficiency improvement opportunities in place as part of its obligations under the Australian Government's Energy Efficiency Opportunities Act 2006 (EEO). This effort also entails a focus on carbon dioxide equivalent emissions (CO<sub>2</sub>-e).

In 2012, which marked the beginning of a new five year Australian Government reporting cycle, the focus was on developing further processes for identifying and implementing new efficiency projects. Overall energy savings (within Iluka's Australian operations), including the identified projects in 2012, amounted to 7 per cent reduction in total energy consumption at the end of the full five year cycle.

Energy efficiency projects in 2012 included the use of a site-based gas-fired power station and improvement in water pumping efficiency at the south secondary concentrator at Eneabba in Western Australia, and ongoing work to improve the efficiency of the power station at Jacinth-Ambrosia in South Australia.

During 2012, preparations were made for the commencement of the Australian Government's carbon pricing mechanism, which is administered by the Clean Energy Regulator. The synthetic rutile production industry, of which Iluka is a part, is classified as an Emissions Intensive, Trade Exposed Industry for purposes of the legislation. Iluka will acquit permits for scope 1 coal emissions from synthetic rutile manufacture, and some emissions from natural gas use. This will be followed by allocation of final permit numbers after the submission of 2013 National Greenhouse and Energy Reporting (NGER) report.

As part of the scheme, Iluka qualifies for assistance permits as allowed under the Jobs and Competitiveness Program. Iluka will acquit the first round of interim permits by June 2013 for scope local emissions from synthetic rutile manufacture and some emissions from natural gas. This will be followed by allocation of final permit numbers after the submission of the 2013 National Greenhouse and Energy Reporting (NGER) report.

## Performance

Iluka's emissions were 765 kilotonnes of CO<sub>2</sub>-e, a reduction of 11 per cent from 2011. This reduction was largely a result of the closure of Kulwin and Douglas mines in the Murray Basin, Victoria, and the major maintenance outages at the two operating synthetic rutile kilns. These decreases have been partially offset by increased emissions associated with the re-opening of the Eneabba mine in Western Australia, the commissioning of the Woonack, Rownack and Pirro mine in Victoria, and the Tutunup South mine in Western Australia reaching full production.

For further statistical information, refer to pages 49-50.

## Water management and use

Water is essential to Iluka's mining, processing and separation processes. The company uses either fresh water or naturally occurring hypersaline water in these processes, the latter defined as water containing dissolved solids in excess of sea water.

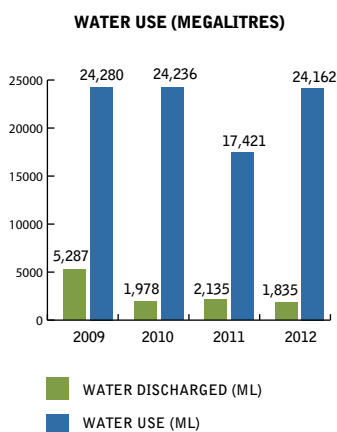
Iluka recycles water where possible. Fresh water discharges normally only occur where there are seasonal imbalances in water supply and demand. In these cases, the discharges are licensed and strict conditions imposed. Excess saline water is disposed of back into the original source location. Groundwater resources are further protected by means of monitoring programs, while regular interpretation of monitoring data is performed by means of aquifer reviews.

## Performance

Higher water usage in 2012, although at a level similar to the years 2009-2010, reflects the recommencement of mining operations at Eneabba in the Mid West of Western Australia, and the production ramp up of the Tutunup South mine in the South West of Western Australia.

The decrease of 22 per cent of water discharged from sites, compared to 2011, is attributed to the Douglas and Kulwin mine ceasing production and the operation of only one mine in the Murray Basin, Victoria. Similarly, the resumption of mining at Eneabba saw increased water use in the Perth Basin.

For further statistical information, refer to page 50.



## Environmental Management

### Rehabilitation and land management

Iluka's five year land rehabilitation objective is to ensure that completion of rehabilitation on disturbed land exceeds new disturbance. Iluka made progress towards this objective in 2012, with 619 hectares of rehabilitation completed versus 223 hectares in 2011. Overall, the total area of land open at December 2012 amounts to 10,510 hectares – an increase from 2011 at 10,032 hectares. New disturbance is attributed to the commencement of Woorack, Rownack and Pirro, further works at Eneabba and exploration tracks.

A key aspect of managing Iluka's rehabilitation obligation is to ensure that rehabilitation outcomes are successful in the long term. Rehabilitation success requires planning supported by relevant scientific studies. The scope of these studies includes groundwater modelling, waste characterisation, soil

profile investigation and the physiology and ecology of native vegetation.

A significant development for 2013 will be the commencement of a partnership between Iluka and the University of Western Australia (UWA) for the Iluka Chair in Vegetation Science and Biogeography for a period of five years. The Iluka Chair will focus on restoration of biodiversity in species-rich shrub lands of the world, with due cognizance of the biogeographic characteristics of those areas. Sponsorship of the UWA Chair will enable scientifically based information and studies to be conducted independently, ensuring credibility and transparency in an area of research fundamental to Iluka's business and long term sustainability.



Rehabilitated mining area at former Echo mine site, Murray Basin, Victoria.

## Performance

In 2012, rehabilitation of the Waroona site the South West of Western Australia was completed, with 92 hectares seeded to pasture. The site has now entered a phase of monitoring and maintenance.

Earthworks activity has moved to backfilling of the Yoganup West mine which is located nearby and on which mining ceased in 2007. The 136 hectare area is planned to be topsoiled and seeded to pasture rehabilitation in the first half of 2013.

In the Mid West of Western Australia, approximately 192 hectares was rehabilitated to pasture or crop, and 25 hectares rehabilitated to native vegetation at the Eneabba and Gingin mines. Pasture rehabilitation included a final void at Eneabba, designed with gentle batters to ensure a long term sustainable land use. Approximately 247 hectares of pasture rehabilitation and native revegetation is scheduled to be completed at Eneabba and Gingin during 2013.

Near Geraldton, Western Australia, waste dam capping works were completed on one dam at the Narngulu synthetic rutile plant, a measure to prevent the risk of iron oxide residue leaching into groundwater. The capping activity also provides validation of the overall closure concept for the site.



Pasture rehabilitation, Waroona, Western Australia. Site originally mined between 2007 and 2009.

## CASE STUDY



Malleefowl, Victoria.

### Malleefowl at Wornack, Rownack and Pirro

The Wornack, Rownack and Pirro mine site is located in north western Victoria. This region is within the current known range of Malleefowl (*Leipoa ocellata*), a species listed as vulnerable under the Environment Protection and Biodiversity Conservation (EPBC) Act 1999, as threatened under the Flora and Fauna Guarantee (FFG) Act 1988, and as endangered on the Advisory List of Threatened Fauna in Victoria (DSE 2003).

As part of the 2008 approvals process, Iluka was required to establish a Malleefowl Management Fund and governing committee, and provide funding for projects which met the objectives of the National Malleefowl Recovery Plan.

The Malleefowl Management Committee was formed in 2010 and has since overseen the disbursement of funds towards approved projects, including improvements to the national monitoring database, content analysis of fox scats, adaptive management research, development of public websites and national newsletters, installation of signage, and support for the National Malleefowl Forum.

Other approval commitments, conditions and management actions relating to habitat preservation and enhancement, predator control, monitoring and education are also being implemented at site. A trial camera used to monitor mounds at site has captured valuable images of Malleefowl and other non-target species, and four more cameras have recently been purchased.

During 2012, Malleefowl activity was detected in an 80 hectare block of remnant native vegetation in the southern end of the mining area.

## Environmental Management

In the Murray Basin, Victoria, rehabilitation of the Douglas, Echo and Kulwin mines continued, with 225 hectares rehabilitated to pasture during 2012. A further 384 hectares of pasture rehabilitation is planned during 2013, which will complete the Kulwin mine area north of the Mallee Highway and the entire Echo site. The Kulwin earthworks will include backfill of infiltration basins that were required to manage groundwater during operations. Echo rehabilitation will include reshaping the final void.

At the Jacinth-Ambrosia mine in South Australia, a revegetation trial was established in a backfilled part of the mine pit. This trial tests the ability of native vegetation to utilise hypersaline tailings capped with different depths of overburden soil. The rehabilitation earthworks plan will be reviewed further during 2013 to ensure mine and rehabilitation program commitments for soil profile replacement can be achieved.

In the United States, 46 hectares of rehabilitation to final landform was completed at the Old Hickory site, and an additional 30 hectares at the Concord mine. Both of these sites are located in Virginia, with the predominant final landform being pasture grass for potential future use as row-crop farmland, pine plantation, or wildlife habitat. At the Brink mine, also in Virginia, rehabilitation begun in 2012, with final landforms scheduled to be achieved in 2013. The closure of the former Green Cove Springs mine in Florida was progressed with the final rehabilitation of 7 hectares to pine tree plantation and the advancement of studies on stable landforms and cover requirements for the final reclamation of process water and tailings impoundments.

For further statistical information, refer to page 51.



Trial bulk harvesting and transplanting of sedges at Eneabba, Western Australia.



Backfill of infiltration basin at the Kulwin mine, Victoria.



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## Radiation management

Deposits of mineral sands, as with some other minerals such as sand, clay, soils, rocks and many ores, contain low levels of naturally-occurring radioactive material (NORM).

While the concentration of NORM in most natural substances is low, any operation in which radioactive material is extracted from the earth and processed (exploration, mining, mineral separation activities) can potentially change the form of or concentrate NORM in product, by-product or waste (residue) streams. For this reason, stringent and internationally accepted radiation management standards are adopted to minimise potential risk to human health or the environment from such concentrations occurring.

Iluka manages the way in which workers and the environment are exposed to radiation and ensures doses remain below regulatory limits.

Post closure monitoring at Iluka mining and processing sites is performed to assess the effectiveness of clean-up and to provide regulators, land owners and the community with sufficient information that there are no legacy issues requiring remedial action.

In 2012, monitoring results and dose assessments for the workforce did not record any employee exposure above the 20 milliSievert (mSv) annual limit. Iluka's exposure limit is well below the five-year 100mSv and annual 50mSv limit typically found in international protocols. The contribution from any of Iluka's operations remains very low in comparison with both public dose limits and the natural background radiation.

## CASE STUDY



Rehabilitation activities, Jacinth-Ambrosia, South Australia.

### Environmental research at Jacinth-Ambrosia

The Western Myall tree (*Acacia papyrocarpa*) is a deep rooted species and is the 'signature' tree surrounding Jacinth-Ambrosia. To ensure sustainable Western Myall populations in the rehabilitated mine pit, the recreated soil profile must be able to sustain the population long enough to allow them to experience at least two series of above average rainfall years. Western Myall trees need a series of above average rainfall years to produce viable seed, germinate and grow, and this type of sequence rarely happens in the semi-arid environment. The rehabilitation team at the Jacinth-Ambrosia mine began investigating the rooting depths of the native vegetation in 2010. They measured some species with root systems growing to 25 metres below surface, through the soil profile and through the floor of the pit. In contrast, the depth of soil to be replaced on top of the saline mine pit tailings is much shallower, varying between 1.5 metres and eight metres depending on the targeted vegetation association.

To further investigate these issues, Iluka expanded an existing relationship with the University of Adelaide, with the partnership submitting a three year research proposal for an Australian Research Council Linkage Project (ARCLP). Field work began in October 2012.

The ARCLP has funded a post-doctorate position and a representative from the University of Adelaide is conducting the research largely based from the mine site, mapping root architecture, monitoring vegetation water use patterns and determining salinity tolerances for key deep rooted species. At the end of the three year project, recommendations will be provided to improve rehabilitation outcomes at Jacinth-Ambrosia.

## Community and Stakeholder Engagement

Iluka recognises that engagement and consultation with stakeholders is integral to the establishment, operation, rehabilitation and relinquishment of its operational facilities.

The company is proud to work in partnership with its host communities, adding value to these regions by providing opportunities for local people, landowners, indigenous groups and community organisations.

### Social Impact Assessments

In 2012, Iluka conducted comprehensive social impact assessments across its Australian operations, including both operating and rehabilitation sites. Over 1,200 stakeholders, including local government authorities, indigenous groups, environmental groups, service providers, special interest groups, landowners and community members were consulted in a series of random and targeted one-on-one interviews and telephone surveys.

The outcomes provided Iluka with a detailed baseline of the impacts, attitudes and perceptions of the communities where it operates, measurable key performance indicators and a number of recommendations on how the company can develop and enhance relationships with stakeholders. These outcomes will form a key component of Iluka's community engagement practices in 2013. Consultation and engagement activities will be tailored to each region and operation and will directly relate to addressing the outcomes of the assessments.

Iluka maintains a formal community comments and complaints procedure for its exploration, project development and operational activities in line with regulatory requirements. Each site has a tailored plan in place which is suitable to the community where it is deployed. All comments and complaints are reported and managed through Iluka's incident reporting management system.

In 2012, the company received 28 public comments and complaints, down from 52 in 2011.

### Community Relations

Community Relations personnel provide support to each operation and key projects during the feasibility, planning, operation and closure and rehabilitation phases. Formal engagement plans are established for both proposed and existing operations to guide the company's consultation activities and contribute to the development of mutually beneficial stakeholder relationships before and throughout operations.

During 2012, Iluka's exploration teams were active in many parts of Australia, including South Australia, Western Australia, New South Wales and Victoria. The exploration teams engage regularly with stakeholders, including traditional owners, land owners, local community and State government representatives on activities including cultural heritage surveys, land access and rehabilitation. Expanded exploration focus areas during the year also saw Iluka engage with stakeholders in emerging provinces internationally as in new areas within Australia.

All community relations activities are conducted in accordance with Iluka's Community Relations Policy.

### Community participation

In 2012, Iluka continued its regular engagement schedule, hosting a number of open days and tours at many of its operating mine sites. The official opening of the Wornack, Rownack and Pirro mine site in Victoria also provided an opportunity for government, community, media and landholder stakeholders to learn about Iluka's latest mine development. The company also continued the successful Talks in Schools Program in South Australia.

Community forums were also conducted for Iluka's proposed operations at Cataby, Western Australia, and Balranald, New South Wales, as well as for the existing Hopetoun rail loading facility and Jacinth-Ambrosia operations, ensuring community and stakeholder awareness on the company's current and proposed operations. The company also participated in a number of community events within the local regions.

In 2012, Iluka received a high commendation at the South Australian Premier's Community Excellence Awards in Mining and Energy in both the 'Excellence in Social Inclusion' and 'Supporting Community Participation' categories.



The Clontarf Foundation.

## Partnership Program

Iluka aims to contribute to positive social outcomes in the communities and regions where it operates, leaving a positive legacy beyond the life of the operations. Iluka partners with national, regional and local organisations that align with the company commitment areas relating to environmental and social improvement.

In 2012, Iluka contributed approximately \$420,000 to 90 different organisations in the communities in which the company operates.

Iluka's major partners include:

- OCHRE Contemporary Dance Company;
- Conservation Volunteers; and
- The Clontarf Foundation.

### OCHRE Contemporary Dance Company

In 2007, the West Australian Aboriginal Dance Company was founded to pursue the vision of creating an Aboriginal contemporary dance company based in Western Australia. The Company was renamed OCHRE Contemporary Dance Company in May 2012.

Iluka became a corporate partner in 2011 in support of its commitment to activities which contribute to diversity and inclusion among indigenous and non-indigenous Australians. OCHRE provides an environment for indigenous and non-indigenous art professionals to work together in harmony, celebrating indigenous culture, stories, dance and music.

Iluka was pleased to extend this partnership in July 2012 and is now Principal Sponsor of OCHRE. This commitment is enabling continued development and growth of OCHRE, with Iluka providing support for its inaugural public performance of Diaphanous in November 2012 in Perth, Western Australia.

### Conservation Volunteers

Conservation Volunteers is a leading environmental conservation group in Australia, managing hundreds of thousands of volunteers from around Australia and internationally to participate in important environmental protection and wildlife conservation projects.

In 2012, Iluka continued its three year partnership with Conservation Volunteers Australia (established in 2011) to assist in the protection of threatened native Australian wildlife. The partnership enables Iluka employees to participate in wildlife conservation activities within Iluka's Australian areas of operation. During the year, Iluka employees participated in a number of volunteering initiatives, including:

- the Southern Grampians Eastern Barred Bandicoot Monitoring Program in Hamilton;
- the Carnaby's Cockatoo Habitat Restoration Program in Perth; and
- Conservation Volunteers revegetation initiative in Adelaide.

Iluka's ongoing partnership with Conservation Volunteers supports the company's commitment to biodiversity and sustainable environmental management.

### The Clontarf Foundation

The Clontarf Foundation was established in 2000 to improve the education, discipline, self-esteem, life skills and employment prospects of young Aboriginal men in Australia.

The Foundation uses football as a drawcard for students to its program. Students are required to apply themselves to their studies and behave in line with the ethos of the Foundation. The programs educate and assist in finding post-schooling employment for approximately 2,800 boys in 54 schools across Western Australia, Northern Territory, Victoria and New South Wales.

Iluka became a partner of the Foundation in 2011 to support its commitment to activities which contribute to cultural diversity and sustainable generational change at a community level. In 2012, Iluka directly supported the education of 36 young Aboriginal men, as well as the participation of one Clontarf student in the Company Directors Course for Indigenous Business Leaders. Iluka employees also participated through attendance at student events, mentoring, site tours and provision of work experience opportunities.

## Director Profiles



**George John Pizzev**  
BE(Chem), FellDip  
(Management), FTSE, FAICD, FAIM  
Chairman

Mr Pizzev was appointed to the Board in November 2005. He has extensive experience in mining and mineral processing. Mr Pizzev was Chairman of Alcoa of Australia and held a number of senior executive positions with Alcoa Inc (USA). He is Chairman of Alumina Limited and a director of Amcor Limited. He was formerly a director of St Vincent's Medical Research Institute (retired November 2011) and of the London Metal Exchange UK from 1997 to 2003.



**Jennifer Anne Seabrook**  
BCom, ACA, FAICD  
Chairman of the Audit and  
Risk Committee

Ms Seabrook was appointed to the Board in May 2009. She is also a non-executive director of IRESS Ltd and Export Finance and Insurance Corporation. Ms Seabrook is a member of ASIC's External Advisory Group and a Special Advisor to Gresham Partners Limited. She was formerly a member of the Takeovers Panel (2000 to 2012), and previous directorships include being a non-executive director of Amcor Limited, Bank of Western Australia Limited, West Australian Newspapers Holdings Limited, Australian Postal Corporation, AlintaGas and Western Power. Ms Seabrook is Chairman of the Audit and Risk Committee and a member of the Remuneration and Nomination Committee. In her executive career Jenny worked at senior levels in chartered accounting, capital markets and investment banking businesses.



**Gavin Rezos**  
BA, LLB, B.Juris, MAICD

Mr Rezos was appointed to the Board in June 2006. He has extensive Australian and international investment banking experience and is a former Investment Banking Director of the HSBC Group with regional roles during his HSBC career based in London, Sydney and Dubai. Mr Rezos has held chief executive positions and executive directorships of companies in the technology, energy and resources areas in the UK, US and Singapore and was formerly a director of Amity Oil NL (Antares). He is Chairman of Alexium International Group Limited, a principal of Viaticus Capital Pty Ltd and a director of Rowing Australia. Mr Rezos is a member of the Audit and Risk Committee and the Remuneration and Nomination Committee.



**Stephen John Turner**  
BCom, ACA

Mr Turner was appointed to the Board in March 2010. He is a founder of the London Stock Exchange listed company, International Ferro Metals Limited. He was the Chief Executive Officer of International Ferro Metals Limited from 2002 to 2009 and continues as a director of that company. He is also a director of South American Ferro Metals Limited and Chairman of Vantage Goldfields Limited. Mr Turner has had responsibility for resource projects in Australia, Africa and the Pacific Islands. He was a founding director of the Australian subsidiary of PSG Investment Group, a South African investment bank. He is an Australian Chartered Accountant. Mr Turner is a member of the Audit and Risk Committee.



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**Wayne Osborn**  
DipEng, MBA, FTSE, MIE(Aust), FAICD  
Chairman of the Remuneration and Nomination Committee

Mr Osborn was appointed to the Board in March 2010. He is a former Managing Director of Alcoa of Australia Limited. He is a director of Wesfarmers Limited and Alinta Holdings, and a former director of Leighton Holdings Limited. Mr Osborn is Chairman of the Australian Institute of Marine Science. He was formerly a director of the Australian Business Arts Foundation and Vice President of the Chamber of Commerce and Industry, Western Australia. Mr Osborn is Chairman of the Remuneration and Nomination Committee.



**Gregory John Walton Martin**  
BEc, LLB, FAIM, MAICD

Mr Martin was appointed to the Board with effect from 1 January 2013. He has over 30 years' experience in the energy, utility and infrastructure sectors, having spent 25 years with the Australian Gas Light Company Ltd (AGL), including five years as CEO and Managing Director. After leaving AGL, Mr Martin was Chief Executive of the infrastructure division of Challenger Financial Services Group and, subsequently, Managing Director and CEO of Murchison Metals Limited. He is currently Chairman of Prostar Capital, and a non-executive Director of Santos Limited, Energy Developments Limited and the Australian Energy Market Operator. Mr Martin is a member of the Audit and Risk Committee.



**David Alexander Robb**  
BSc, GradDip (Personnel Administration), FAIM, FAICE  
Managing Director

Mr Robb joined the Board in 2006 after his appointment as Managing Director and CEO of Iluka Resources.

After graduating from the University of Western Australia, Mr Robb worked in the downstream oil industry with BP in Australia, the UK, the USA and Asia. He joined Wesfarmers in Perth in 1995 and was appointed General Manager, Business Development for the Wesfarmers Group in 1996 and subsequently as Managing Director of Wesfarmers Energy in 1999. In 2004 he was appointed an Executive Director of Wesfarmers Limited, a role relinquished in 2006 on joining Iluka. Other previous roles include Chairman of Consolidated Rutile Limited and Deputy Chair of Methodist Ladies College, Perth.



**James Hutchison Ranck**  
BSE (Econ), FAICD

Mr Ranck was appointed to the Board with effect from 1 January 2013. He has held senior management positions with DuPont, both in Australia and internationally in finance, chemicals, pharmaceuticals and agriculture for over 30 years. He also served as a Director of DuPont's Hong Kong based subsidiary, Titanium Technologies, for seven years. Mr Ranck retired as Managing Director of DuPont Australia and New Zealand and Group Managing Director of DuPont ASEAN in May 2010. He is currently a non-executive Director of Elders Limited and the CSIRO. Mr Ranck is a member of the Remuneration and Nomination Committee.

## Leadership Team Profiles

The following are the members of Iluka's Leadership Team in 2012. This team reported to the Managing Director, David Robb.

### Matthew Blackwell

B Eng (Mech), Grad Dip (Tech Mgt), MBA, MAICD, MIEAust  
General Manager, USA  
Location – Virginia, USA

Mr Blackwell joined Iluka in 2004 as President, US Operations. From 2007, he was responsible for Land Management before returning to lead the USA region in May 2009. Prior to joining Iluka he was Executive Vice President of TSX listed Asia Pacific Resources and based in Thailand. He has a background in mining and processing with positions in project management, maintenance, production and business development.

### Chris Cobb

Dip CSM, FIQ  
General Manager, Sales and Marketing  
Locations – Shanghai, China; Jacksonville, USA;  
London, UK; Brisbane, Australia

Mr Cobb has 33 years of resource and manufacturing experience in Africa, Europe, Asia and Australia. Previous roles include five years as Managing Director of Consolidated Rutile, an ASX listed Queensland mineral sands company, 12 years in copper and cobalt mining in Zambia, and four years as Chief Executive Officer of the largest construction materials company in Malaysia.

### Simon Green

BA (Hons), ACA, MAICD  
General Manager, Finance and Risk  
Location – Perth, Western Australia

Mr Green joined Iluka in 2006 as General Manager Finance after a twenty year career in audit and assurance with PricewaterhouseCoopers in Australia and the UK, specialising in the Energy and Resources sector. In September 2011, he assumed additional responsibility for the Iluka group Risk Management team.

### Victor Hugo

BSc, MSc, PhD  
General Manager, Product and Technical Development  
Location – Capel, Western Australia

Dr Hugo originally joined Iluka in 1998. After leaving Iluka in 2001 and working with the minerals sands industry research and consulting company, TZMI, he re-joined Iluka in 2003 as General Manager, Sales and Marketing. In September 2009, he was appointed General Manager, Product and Technical Development. He has also held positions with Richards Bay Minerals and Cable Sands.

### Robert Porter

BA (Hons), MSc (Econ), PhD  
General Manager, Investor Relations  
and Corporate Affairs  
Location – Melbourne, Victoria, Australia

Dr Porter joined Iluka in December 2005. He has worked in the investor relations area for two decades with roles at BHP Billiton, Foster's, Southcorp and Ampolex. He has also held government relations roles at Westpac and BP Australia.

### Alan Tate

BCom, FCA, AICD  
Chief Financial Officer and Head of Strategy and Planning  
Location – Perth, Western Australia

Mr Tate joined Iluka in May 2008. He was previously Chief Financial Officer for Jabiru Metals. Prior to joining Jabiru, he held senior planning, finance and accounting roles with BHP Billiton and WMC Resources. He commenced his career with Peat Marwick.

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**Hans Umlauff**

B MEng (Hons), FIEAust

**General Manager, New South Wales Development and Iluka Project Standards**

**Location – Newcastle, New South Wales**

Mr Umlauff joined Iluka in June 2006 as Executive General Manager Capital Projects. He has had a career in various Australian and International engineering, operational, project management and capital management roles with BHP Steel, BHP, Normandy Mining and Newmont Australia.

**Doug Warden**

BCom, CA, MBA

**General Manager, Exploration and Resources Development**

**Location – Perth, Western Australia**

Mr Warden originally joined Iluka in 2003. After leaving Iluka in 2007, Mr Warden held Chief Financial Officer roles at both Summit Resources and Jabiru Metals. Since rejoining the company in 2009, he held the position of General Manager, Business Development before being appointed General Manager, Exploration and Resources Development in September 2011. Mr Warden began his career in corporate finance and insolvency with Ernst & Young and KPMG.

**Steve Wickham**

Assoc Dip in Mechanical Engineering

**General Manager, Australian Operations**

**Location – Adelaide, South Australia**

Mr Wickham is a mechanical engineer with extensive experience in senior and executive roles in Australia and South Africa in the manufacturing and mining sectors. Prior to joining Iluka in 2007, he was Chief Executive Officer of Ticon South Africa and Managing Director of Australian Zircon.

**Cameron Wilson**

LLB, GAICD

**Chief Legal Counsel and Head of Corporate Acquisitions**

**Location - Perth, Western Australia**

Mr Wilson joined Iluka in late 2004 after seven years in a range of legal and commercial roles with WMC Resources. He has specialised in mining, corporate and general commercial law for most of his professional career.



## Group Summary Financials

### Group profit and loss summary (\$m)

\$ million	2012	2011	% Change
Z/R/SR revenue	973.8	1,461.2	(33.4)
Ilmenite and other revenue	96.0	75.5	27.2
<b>Mineral sands revenue</b>	<b>1,069.8</b>	<b>1,536.7</b>	<b>(30.4)</b>
Cash costs of production	(583.5)	(628.9)	7.2
Inventory movement	346.9	147.7	134.9
Restructure and idle capacity charges	(14.8)	(8.5)	(74.1)
Rehabilitation and holding costs for closed sites	(9.8)	(36.2)	72.9
Government royalties	(19.6)	(25.2)	22.2
Marketing and selling costs	(30.2)	(34.5)	12.5
Asset sales and other income	10.3	7.5	37.3
Product, technical development and major projects	(13.6)	(13.7)	0.7
Exploration expenditure	(29.5)	(19.0)	(55.3)
<b>Mineral sands EBITDA</b>	<b>726.0</b>	<b>925.9</b>	<b>(21.6)</b>
Depreciation and amortisation	(202.7)	(224.2)	9.6
Impairment reversal	-	35.6	(100.0)
<b>Mineral sands EBIT</b>	<b>523.3</b>	<b>737.3</b>	<b>(29.0)</b>
Mining Area C	72.3	88.1	(17.9)
Corporate and other costs	(45.7)	(35.5)	(28.7)
Foreign exchange	(4.2)	(0.4)	N/A
<b>Group EBIT</b>	<b>545.7</b>	<b>790.3</b>	<b>(31.0)</b>
Net interest and bank charges	(6.6)	(8.0)	17.5
Rehabilitation unwind and other finance costs	(26.9)	(21.6)	(24.5)
<b>Profit before tax</b>	<b>512.2</b>	<b>760.7</b>	<b>(32.7)</b>
Tax expense	(149.0)	(218.9)	31.9
<b>Profit for the period (NPAT)</b>	<b>363.2</b>	<b>541.8</b>	<b>(33.0)</b>
<b>Average AUD/USD (cents)</b>	<b>103.6</b>	<b>103.2</b>	<b>(0.4)</b>

### Financial ratios

	2012	2011	% Change
EBITDA/revenue margin %	70.0	63.7	9.9
Gearing (net debt/debt + equity) %	5.8	N/A	N/A
Interest cover (EBITDA/net interest expense) times	197.1	125.1	57.6
Return on equity %	23.2	42.5	(45.4)
Basic earnings per share – cents	87.1	130.1	(33.1)

## Five Year Physical and Financial Information

## Summary physical information

	2012	2011	2010	2009	2008
<b>Production volumes (kt)</b>					
- Zircon	343.2	601.5	412.9	263.1	385.1
- Rutile	220.3	281.3	250.1	141.4	140.1
- Synthetic rutile	248.3	285.7	347.5	405.0	467.3
- Ilmenite saleable	385.6	459.7	469.0	342.1	586.2
- Ilmenite upgradable	288.5	201.9	215.9	496.7	641.0
<b>Sales volumes (kt)</b>					
- Zircon	213.8	514.5	478.7	222.6	481.0
- Rutile	105.5	265.9	240.0	138.7	156.4
- Synthetic rutile	169.6	257.7	362.5	396.7	507.0
- Ilmenite saleable	443.2	570.9	373.7	376.4	643.1
<b>Weighted average annual prices (US\$/t)</b>					
- Zircon	2,080	1,886	913	815	760
- Rutile	2,464	1,174	560	511	502
- Synthetic rutile	1,771	878	481	461	452
<b>Average AUD:USD spot exchange rate (cents)</b>	<b>103.6</b>	<b>103.2</b>	<b>92.0</b>	<b>79.3</b>	<b>85.4</b>
<b>AUD:USD range (cents)</b>	<b>96.8/108.1</b>	<b>95.3/110.3</b>	<b>81.2/101.8</b>	<b>62.9/93.7</b>	<b>60.4/98.0</b>

<b>Summary financials (\$m)</b>					
Revenue from operations <sup>1</sup>	1,069.8	1,536.7	874.4	576.0	894.8
Group EBITDA	748.8	979.3	305.1	99.6	274.6
- Mineral sands EBITDA	726.0	925.9	250.2	75.6	186.3
- Mining Area C EBITDA	72.7	88.5	76.3	50.2	56.8
- Other EBITDA	(49.9)	(35.1)	(21.4)	(9.5)	(47.0)
Depreciation and amortisation	(203.1)	(224.6)	(219.0)	(176.6)	(161.7)
Net interest and finance charges	(33.5)	(29.6)	(46.2)	(22.7)	(35.6)
Income tax (expense) benefit	(149.0)	(218.9)	(3.8)	61.5	7.7
NPAT	363.2	541.8	36.1	(82.4)	77.5
Operating cash flow	368.7	706.2	163.6	83.9	226.4
Capital expenditure	(167.3)	(142.5)	(117.2)	(521.6)	(198.4)
Free cash flow <sup>2</sup> (\$m)	81.2	589.6	60.7	(209.8)	420.7
Net (debt) cash	(95.9)	156.7	(312.6)	(382.1)	(215.7)

<b>Capital and dividends</b>					
Ordinary shares on issue (millions)	418.7	418.7	418.7	418.7	380.7
Dividends per share in respect of the year (cents)	35.0	75.0	8.0	N/A	N/A
Franking level (per cent)	100.0	73.3	0.0	N/A	N/A
Opening year share price (\$)	15.50	9.14	3.58	4.64	4.11
Closing year share price (\$)	9.02	15.50	9.14	3.58	4.64

<b>Financial ratios</b>					
Basic earnings per share (cents)	87.1	130.1	8.6	(8.7)	17.8
Cash flow per share (cents)	19.4	140.6	14.5	(50.1)	110.5
Return on shareholders' equity <sup>3</sup> (per cent)	23.2	42.5	3.2	(7.5)	7.9
Return on capital <sup>4</sup> (per cent)	32.8	54.9	5.0	(9.6)	7.9
Gearing (net debt/net debt + equity) (per cent)	5.8	N/A	21.8	25.9	17.4

<b>Financial position as at 31 December (\$m)</b>					
Total assets	2,426.6	2,453.8	1,939.9	2,098.4	2,058.1
Total liabilities	859.5	(919.1)	(815.3)	(1,003.1)	(1,020.1)
Net assets	1,567.1	1,534.7	1,124.6	1,095.3	1,038.0
Shareholders' equity	1,567.1	1,534.7	1,124.6	1,095.3	979.8
Net tangible asset backing per share (\$)	3.74	3.65	2.54	2.46	2.61

<sup>1</sup> 2010-2008 excludes hedging gains/(losses).

<sup>2</sup> Free cash flow is determined as cash flow before any debt refinance costs and dividends paid in the year.

<sup>3</sup> Calculated as Net Profit After Tax (NPAT) for the year as a percentage of the average monthly shareholders equity over the year.

<sup>4</sup> Calculated as Earnings Before Interest and Tax (EBIT) for the year as a percentage of average monthly capital employed for the year.

## Operating Mines – Physical Data

12 Months to 31 December 2012

	Jacynth-Ambrosia	Murray Basin	Western Australia	Australia Total	Virginia	Group Total
<b>Mining</b>						
Overburden moved bcm	905.8	12,010.2	426.8	13,342.8	0.0	13,342.8
Ore mined kt	9,137.9	3,528.4	12,377.1	25,043.4	4,694.8	29,738.2
Ore grade HM %	5.2	22.5	4.4	7.2	7.1	7.2
VHM grade %	4.3	9.4	3.6	4.7	5.9	4.9
<b>Concentrating</b>						
HMC produced kt	374.9	384.8	446.9	1,206.6	323.1	1,529.7
VHM produced kt	336.5	262.8	363.3	962.6	251.3	1,213.9
VHM in HMC assemblage %	89.7	68.3	81.3	79.8	77.8	79.4
Zircon	52.2	28.1	12.8	29.9	15.5	26.9
Rutile	6.2	37.8	8.4	17.1	0.0	13.5
Ilmenite	30.5	0.0	55.2	29.9	62.3	36.8
HMC processed kt	323.4	444.0	350.1	1,117.5	350.6	1,468.1
<b>Finished product kt</b>						
Zircon	138.2	135.6	20.0	293.8	49.4	343.2
Rutile	26.9	170.3	23.1	220.3	0.0	220.3
Ilmenite saleable	86.6	96.5	0.0	183.1	202.5	385.6
Ilmenite upgradeable	3.8	72.3	200.2	276.3	12.2	288.5
Synthetic rutile produced kt			248.3	248.3		248.3

### 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.

**Attributable 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.

## Ore Reserves and Mineral Resources Statement

### Ore Reserve breakdown by country, region and JORC category at 31 December 2012

Summary of Ore Reserves <sup>(1,2,3)</sup> for Iluka		HM Assemblage <sup>(4)</sup>							
Country	Region	Ore resource category	Ore tonnes millions	In Situ HM tonnes millions	HM grade (%)	Ilmenite grade (%)	Zircon grade (%)	Rutile grade (%)	Change HM tonnes millions
Australia	Eucla Basin	Proved	130.2	5.87	4.5	28	51	5	
		Probable	3.4	0.07	2.1	20	51	5	
	<b>Total Eucla Basin</b>		<b>133.5</b>	<b>5.94</b>	<b>4.4</b>	<b>28</b>	<b>51</b>	<b>5</b>	<b>(0.44)</b>
	Murray Basin	Proved	8.8	2.25	25.6	53	11	18	
		Probable	11.6	1.80	15.5	46	14	19	
	<b>Total Murray Basin<sup>(5)</sup></b>		<b>20.4</b>	<b>4.05</b>	<b>19.9</b>	<b>50</b>	<b>12</b>	<b>18</b>	<b>(0.77)</b>
	Perth Basin	Proved	9.5	0.87	9.1	60	14	2	
		Probable	306.4	16.59	5.4	59	10	5	
	<b>Total Perth Basin<sup>(6)</sup></b>		<b>315.9</b>	<b>17.46</b>	<b>5.5</b>	<b>59</b>	<b>10</b>	<b>5</b>	<b>(0.50)</b>
USA	Atlantic Seaboard	Proved	20.3	0.90	4.4	69	15	-	
		Probable	14.4	0.61	4.2	57	18	-	
	<b>Total Atlantic Seaboard<sup>(7)</sup></b>		<b>34.7</b>	<b>1.51</b>	<b>4.4</b>	<b>64</b>	<b>16</b>	<b>-</b>	<b>0.25</b>
	<b>Total proved</b>		<b>168.8</b>	<b>9.89</b>	<b>5.9</b>	<b>40</b>	<b>35</b>	<b>7</b>	
	<b>Total probable</b>		<b>335.8</b>	<b>19.08</b>	<b>5.7</b>	<b>58</b>	<b>11</b>	<b>6</b>	
	<b>Total</b>		<b>504.6</b>	<b>28.97</b>	<b>5.7</b>	<b>52</b>	<b>19</b>	<b>6</b>	<b>(1.47)</b>

Numbers may not add due to rounding.

#### Notes:

- Competent Persons - Ore Reserves  
Eucla Basin, Perth Basin and Murray Basin: C Lee (MAusIMM)  
Atlantic Seaboard: C Stilson (SME)
- Ore Reserves are a sub-set of Mineral Resources.
- Rounding may generate differences in last decimal place.
- Mineral assemblage is reported as a percentage of in situ HM content.
- Ilmenite currently has had no value ascribed in the reserve optimisation process for the Murray Basin. Metallurgical testwork and marketing studies are presently underway; the outcomes of which may see a revision of the Ore Reserves.
- Rutile component in Perth Basin South West operations is sold as a leucoxene product.
- Rutile is included in ilmenite for the Atlantic Seaboard region.

Ore Reserves and Mineral Resources are estimated using all available geological and relevant drill hole and assay data, including mineralogical sampling and test work on mineral recoveries and final product qualities. Reserve estimates are determined by the consideration of all of the "modifying factors" in accordance with the JORC Code 2004, and for example, may include but are not limited to, product prices, mining costs, metallurgical recoveries, environmental consideration, access and approvals. These factors may vary significantly between deposits. Resource estimates are determined by consideration of geology, HM cut-off grades, mineralisation thickness vs. overburden ratios and consideration of the potential mining and extraction methodology. These factors may vary significantly between deposits.

The statement of Mineral Resources and Ore Reserves presented in this report has been produced in accordance with the Australasian Code for Reporting Mineral Resources and Ore Reserves, December 2004 (the JORC Code).

The information in this report relating to Mineral Resources and Ore Reserves is based on information compiled by Competent Persons (as defined in the JORC Code). Each of the Competent Persons for deposits located outside Australia is a member of a Recognised Overseas Professional Organisations (ROPO) as listed by the ASX. Each of the Competent Persons had, at the time of reporting, sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity they were undertaking to qualify as a Competent Person as defined by the JORC Code. At the reporting date, each Competent Person listed in this report was a full-time employee of Iluka Resource Limited. Each Competent Person consents to the inclusion in this report of the matters based on their information in the form and context in which it appears.

All of the Mineral Resource and Ore Reserve figures reported represent estimates at 31 December 2012. All tonnes and grade information has been rounded, hence small differences may be present in the totals. All of the Mineral Resource information is inclusive of Ore Reserves (i.e. Mineral Resources are not additional to Ore Reserves).



## Ore Reserves and Mineral Resources Statement

### Ore Reserves mined and adjusted by country and region at 31 December 2012

Summary of Ore Reserve depletion <sup>(1)</sup>			In Situ HM tonnes millions 2011	In Situ HM tonnes millions mined 2012	In Situ HM tonnes <sup>(2)</sup> millions adjusted 2012	In Situ HM tonnes millions 2012	In Situ HM tonnes <sup>(3)</sup> millions net change
Country	Region	Category					
Australia	Eucla Basin	Active Mines	4.43	(0.45)	0.00	3.99	(0.44)
		Non-Active Sites	1.95	-	-	1.95	-
	<b>Total Eucla Basin</b>		<b>6.38</b>	<b>(0.45)</b>	<b>0.00</b>	<b>5.94</b>	<b>(0.44)</b>
	Murray Basin	Active Mines	0.30	(0.77)	2.82	2.36	2.06
		Non-Active Sites	4.53	-	(2.83)	1.70	(2.83)
	<b>Total Murray Basin</b>		<b>4.83</b>	<b>(0.77)</b>	<b>(0.01)</b>	<b>4.05</b>	<b>(0.77)</b>
	Perth Basin	Active Mines	1.65	(0.49)	(0.01)	1.15	(0.50)
		Non-Active Sites	16.31	-	-	16.31	-
	<b>Total Perth Basin</b>		<b>17.97</b>	<b>(0.49)</b>	<b>(0.01)</b>	<b>17.47</b>	<b>(0.50)</b>
	USA	Atlantic Seaboard	Active Mines	1.26	(0.32)	(0.03)	0.90
Non-Active Sites			-	-	0.61	0.61	0.61
<b>Total Atlantic Seaboard</b>			<b>1.26</b>	<b>(0.32)</b>	<b>0.58</b>	<b>1.51</b>	<b>0.25</b>
<b>Total active mines</b>			<b>7.65</b>	<b>(2.03)</b>	<b>2.78</b>	<b>8.40</b>	<b>0.75</b>
<b>Total non-active sites</b>		<b>22.79</b>	<b>-</b>	<b>(2.22)</b>	<b>20.57</b>	<b>(2.22)</b>	
<b>Total Ore Reserves</b>		<b>30.44</b>	<b>(2.03)</b>	<b>0.57</b>	<b>28.97</b>	<b>(1.47)</b>	

#### Notes:

- (1) Rounding may generate differences in last decimal place.
- (2) Adjusted figure includes write-downs and modifications in mine design.
- (3) Net change includes depletion by mining and adjustments.

## Mineral Resource breakdown by country, region and JORC category at 31 December 2012

Summary of Mineral Resources <sup>(1,2,3)</sup> for Iluka				HM Assemblage <sup>(4)</sup>					
Country	Region	Mineral resource category	Material tonnes millions	In Situ HM tonnes millions	HM grade (%)	Ilmenite grade (%)	Zircon grade (%)	Rutile grade (%)	Change HM tonnes millions
Australia	Eucla Basin	Measured	210.6	8.38	4.0	34	43	4	
		Indicated	80.8	1.47	1.8	13	60	5	
		Inferred	151.3	10.25	6.8	66	16	2	
	<b>Total Eucla Basin</b>		<b>442.8</b>	<b>20.10</b>	<b>4.5</b>	<b>49</b>	<b>30</b>	<b>3</b>	<b>1.78</b>
	Murray Basin	Measured	16.1	3.23	20.1	52	11	16	
		Indicated	127.2	24.23	19.1	56	11	13	
		Inferred	78.7	9.23	11.7	48	10	15	
	<b>Total Murray Basin</b>		<b>221.9</b>	<b>36.69</b>	<b>16.5</b>	<b>54</b>	<b>11</b>	<b>14</b>	<b>(1.35)</b>
	Perth Basin	Measured	518.9	29.33	5.7	58	10	5	
Indicated		352.4	18.82	5.3	57	10	5		
Inferred		257.4	12.19	4.7	57	9	5		
<b>Total Perth Basin<sup>(5)</sup></b>		<b>1,128.6</b>	<b>60.34</b>	<b>5.3</b>	<b>57</b>	<b>10</b>	<b>5</b>	<b>(0.50)</b>	
USA	Atlantic Seaboard	Measured	24.7	1.01	4.1	69	15	-	
		Indicated	57.1	3.04	5.3	64	12	-	
		Inferred	35.9	1.52	4.2	65	8	-	
<b>Total Atlantic Seaboard<sup>(6)</sup></b>		<b>117.7</b>	<b>5.57</b>	<b>4.7</b>	<b>65</b>	<b>11</b>	<b>-</b>	<b>1.98</b>	
<b>Total measured</b>			<b>770.3</b>	<b>41.95</b>	<b>5.4</b>	<b>53</b>	<b>17</b>	<b>5</b>	
<b>Total indicated</b>			<b>617.5</b>	<b>47.56</b>	<b>7.7</b>	<b>56</b>	<b>12</b>	<b>9</b>	
<b>Total inferred</b>			<b>523.3</b>	<b>33.19</b>	<b>6.3</b>	<b>58</b>	<b>11</b>	<b>6</b>	
<b>Total</b>			<b>1,911.1</b>	<b>122.70</b>	<b>6.4</b>	<b>55</b>	<b>13</b>	<b>7</b>	<b>1.90</b>

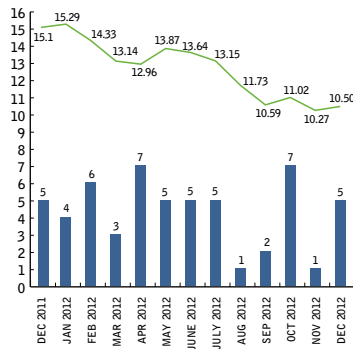
## Notes:

- (1) Competent Persons - Mineral Resources  
Eucla Basin and Perth Basin (Mid West): B Gibson (MAIG)  
Perth Basin (South West): R Stockwell (MAIG)  
Murray Basin: V O'Brien (MAusIMM)  
Atlantic Seaboard: A Karst (SME)
- (2) Mineral Resources are inclusive of Ore Reserves.
- (3) Rounding may generate differences in last decimal place.
- (4) Mineral assemblage is reported as a percentage of in situ HM content.
- (5) Rutile component in Perth Basin South West operations is sold as a leucoxene product.
- (6) Rutile is included in ilmenite for the Atlantic Seaboard region.

# Environment, Health and Safety Data

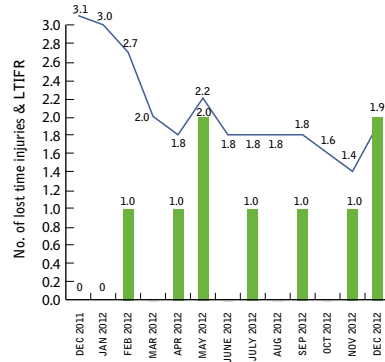
For personal use only

Chart 1: Total recordable injury frequency rate 2012



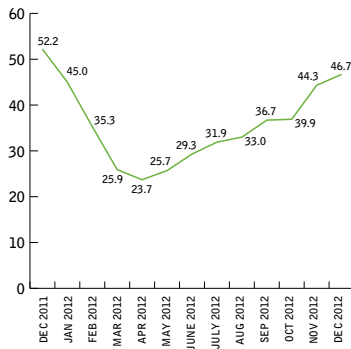
All rates expressed per million hours.  
Includes permanent employees and contractors.

Chart 2: Lost time injury frequency rate 2012



All rates expressed per million hours.  
Includes permanent employees and contractors.

Chart 3: Severity rate 2012



All rates expressed per million hours.  
Includes permanent employees and contractors.

Table 1: Safety performance by area 2012<sup>1</sup>

	Fatality	LTI	MTI	FAI	TRI	Minor
Murray Basin	0 (0)	1 (3)	3 (8)	12 (24)	14 (27)	107 (205)
Eucla Basin	0 (0)	0 (0)	2 (1)	8 (14)	2 (3)	47 (23)
Perth Basin	0 (0)	5 (3)	4 (13)	63 (55)	13 (20)	155 (102)
US	0 (0)	2 (1)	7 (0)	3 (4)	10 (3)	29 (45)
Exploration	0 (0)	0 (1)	1 (3)	3 (1)	3 (4)	11 (13)
Corporate	0 (0)	1 (4)	5 (4)	14 (4)	7 (9)	21 (19)
Projects	0 (0)	0 (2)	2 (0)	6 (5)	2 (3)	10 (9)
<b>Total</b>	<b>0 (0)</b>	<b>9 (14<sup>2</sup>)</b>	<b>24 (29)</b>	<b>109 (107<sup>3</sup>)</b>	<b>51 (69)</b>	<b>380 (416<sup>4</sup>)</b>

<sup>1</sup> Expressed as the number of incidents (2011 data in brackets).

Data include employees and contractors.

LTI = Lost Time Injury

MTI = Medical Treatment Injury

FAI = First Aid Injury

TRI = Total Recordable Injury

<sup>2</sup> In the 2011 Iluka Review, 13 LTI were reported. Audits conducted during 2012 showed that 14 LTI were in fact registered.

<sup>3</sup> In the 2011 Iluka Review, 109 FAI were reported. Audits conducted during 2012 showed that 107 FAI were in fact registered.

<sup>4</sup> In the 2011 Iluka Review 414 minor injuries were reported. Audits conducted during 2012 showed that 416 minor injuries were in fact registered.

Table 2: Energy efficiency opportunities – 5-year cycle

	2008	2009	2010	2011	2012 <sup>2</sup>
Implemented <sup>1</sup>	4	11	29	37	1
To be implemented	7	8	3	2	-
Implementation commenced <sup>3</sup>	3	9	7	4	-
Under investigation	8	11	2	8	1
Not to be implemented	4	5	13	13	1
<b>Total</b>	<b>26</b>	<b>44</b>	<b>54</b>	<b>64</b>	<b>3</b>

<sup>1</sup>The 'implemented' category refers to the total number of the original ideas that were in force during that year.

<sup>2</sup>2012 is the first year of the second cycle therefore the count reverts to zero plus the inclusion of some projects that are carried over due to the analysis being incomplete at the end of 2011.

<sup>3</sup>The 'implementation commenced' category refers to projects that were being implemented during that year, and when the implementation is complete, these projects transfer to the 'implemented' category.

Table 3: Energy resources used by type (%)

	2006-2008 average	2009	2010	2011	2012
Coal	58	50	55	53	46
Electricity	16	14	11	10	15
Natural gas	10	10	10	12	19
Liquid petroleum gas	<1	2	5	5	<1
Diesel	16	21	19	19	20
Petrol	<1	3	<1	<1	<1
Fuel, oil and greases	<1	<1	<1	<1	<1

Table 4: Energy use by region (terajoules)

	2006-2008 average	2009	2010	2011	2012
Murray Basin (Vic)	512	740	1,451	1,352	903
Eucla Basin (SA)	9	251	522	547	670
Perth Basin (WA)	12,036	7,941	7,059	6,591	6,393
Virginia (US)	706	1,368	977	997	485
Exploration	4	314	62	8	8
Corporate	1	1	1	1	2
<b>Total</b>	<b>13,267</b>	<b>10,615</b>	<b>10,072</b>	<b>9,496</b>	<b>8,461</b>



## Environment, Health and Safety Data

Table 5: Carbon dioxide emissions by region (kt CO2-e)

	2006-2008 average	2009	2010	2011	2012
Murray Basin (Vic)	86	112	182	161	105
Eucla Basin (SA)	1	19	40	38	38
Perth Basin (WA)	1,245	830	704	588	549
Virginia (US)	104	48	69	72	73
Exploration	1	2	1	1	<1
Corporate	N/A	N/A	N/A	1	<1
<b>Total</b>	<b>1,437</b>	<b>1,011</b>	<b>996</b>	<b>861</b>	<b>765</b>

Table 6: Water use by region (megalitres)

	2006-2008 average	2009	2010	2011	2012
Murray Basin (Vic)	2,113	3,012	4,522	3,925	2,742
Eucla Basin (SA)	13	1,119	9,636	6,867	7,763
Perth Basin (WA)	21,622	18,726	8,610	5,040	11,623
Virginia (US)	2,658	1,422	1,467	1,589	2,034
<b>Total</b>	<b>26,406</b>	<b>24,279</b>	<b>24,235</b>	<b>17,421</b>	<b>24,162</b>

Table 7: Water discharged by region<sup>1</sup> (megalitres)

	2006-2008 average	2009	2010	2011	2012
Murray Basin (Vic)	19	26	128	123	114
Eucla Basin (SA)	2	0	0	0	0
Perth Basin (WA)	5,295	3,745	1,559	1,603	1,457
Virginia (US)	982	1,515	290	509	264
<b>Total</b>	<b>6,298</b>	<b>5,286</b>	<b>1,977</b>	<b>2,235</b>	<b>1,835</b>

<sup>1</sup> 'Discharged' is defined as water discharged via metered flow to either surface drainage or groundwater infiltration basins

1 - Tabulated data may not add due to rounding.

Table 8: Land use by region: land disturbed (hectares)

	2009	2010	2011	2012
Murray Basin (Vic)	624	666	1,193	363
Eucla Basin (SA)	720	61	67	62
Perth Basin (WA)	320	59	173	162
United States	58	93	66	124
Exploration	512	654	351	386 <sup>1</sup>
<b>Total</b>	<b>2,234</b>	<b>1,533</b>	<b>1,850</b>	<b>1,097</b>

<sup>1</sup> Consists predominantly of access tracks which naturally rehabilitate within 12 months.

Table 9: Land use by region: land rehabilitated (hectares)<sup>1</sup>

	2009	2010	2011	2012
Murray Basin (Vic)	58	25	62	225
Eucla Basin (SA)	0	80	5	0
Perth Basin (WA)	273	15	79	310
United States	170	97	77	83
Exploration	34	62	26	1
<b>Total</b>	<b>535</b>	<b>279</b>	<b>249</b>	<b>619</b>

<sup>1</sup> Includes backfilling, topsoil, vegetation established.

Table 10: Land use by region: total area open as at 30 December, 2012 (hectares)

	2009	2010	2011	2012
Murray Basin (Vic)	1,236	1,877	3,008	3,146
Eucla Basin (SA)	988	969	1,032	1,094
Perth Basin (WA)	3,888	3,932	4,026	3,878
United States	528	524	513	554
Exploration	536	1,128	1,453	1,838
<b>Total</b>	<b>7,176</b>	<b>8,430</b>	<b>10,032</b>	<b>10,510</b>

## Corporate Information

### Company details

Iluka Resources Limited  
ABN: 34 008 675 018

### Australian Securities Exchange listing

Iluka's shares are listed on the Australian Securities Exchange Limited. The company is listed as "Iluka" with an ASX code of ILU. The company had 418.7 million shares on issue as at 31 December 2012.

### Registered office

Level 23, 140 St George's Terrace  
Perth WA 6000

#### Postal address:

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Perth WA 6845 Australia  
Telephone: +61 8 9360 4700  
Facsimile: +61 8 9360 4777  
Website: www.iluka.com

This site contains information on Iluka's products, marketing, operations, ASX releases, financial and quarterly reports. It also contains links to other sites, including the share registry.

### Share registry inquiries

Shareholders who require information about their shareholdings, dividend payments or related administrative matters should contact the company's share registry:

Computershare Investor Services Pty Limited  
Level 2, 45 St Georges Terrace  
Perth WA 6000  
Telephone: +61 3 9415 5000 (Head office) +61 8 9323 2000  
(Perth) or 1300 850 505  
Facsimile: +61 8 9323 2033 (Perth) or +61 3 9473 2500  
(Melbourne)

#### Postal address:

GPO Box 2975  
Melbourne VIC 3000  
Website: www.computershare.com

Each inquiry should refer to the shareholder number which is shown on issuer-sponsored holding statements and dividend statements.

### Dividends

Iluka recommenced dividend payments with the 2010 full year results. Iluka has suspended its dividend reinvestment plan.

### 2013 calendar

21 February	Announcement of Full Year Financial Results
7 March	Record date for Full Year Dividend
4 April	Full Year Dividend payment date
17 April	March Quarter Production Report
20 May 9:30am WST	Closure of acceptances of proxies for AGM
22 May 9:30am WST	Annual General Meeting – Perth
17 July	June Quarter Production Report
23 August	Announcement of Half Year Financial Results
16 October	September Quarter Production Report
31 December	Financial Year End

All dates are indicative and subject to change. Shareholders are advised to check with the company to confirm timings.

### Investor Relations inquiries

For shareholder, potential investor and media inquiries of the company (non shareholding related), please contact:

Dr Robert Porter  
General Manager, Investor Relations and Corporate Affairs  
robert.porter@iluka.com

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## Corporate Information

### Disclaimer – Forward Looking Statements

These statements include, without limitation, estimates of future production and production potential; estimates of future capital expenditure and cash costs; estimates of future product supply, demand and consumption; statements regarding future product prices; and statements regarding the expectation of future Mineral Resources and Ore Reserves.

Where Iluka expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and on a reasonable basis. No representation or warranty, express or implied, is made by Iluka that the matters stated in this publication will in fact be achieved or prove to be correct.

Forward-looking statements are only predictions and are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks and factors include, but are not limited to:

- changes in exchange rate assumptions;
- changes in product pricing assumptions;
- major changes in mine plans and/or resources;
- changes in equipment life or capability;
- emergence of previously underestimated technical challenges; and
- environmental or social factors which may affect a licence to operate.

Iluka does not undertake any obligation to release publicly any revisions to any forward-looking statement to reflect events or circumstances after this publication, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

### Non-IFRS Financial Information

This document uses non-IFRS financial information including mineral sands EBITDA, mineral sands EBIT, Group EBITDA and Group EBIT which are used to measure both group and operational performance. Non-IFRS measures are unaudited but derived from audited accounts. A reconciliation of non-IFRS financial information to the audited Profit before income tax in the Consolidated Income Statement is included in the Iluka 2012 Full Year Results Presentation Slide Pack located in the Investors and Media section of the Iluka website.

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[www.iluka.com](http://www.iluka.com)