



Australian Securities Exchange Notice

24 July 2019

ASX: ILU

QUARTERLY REVIEW TO 30 JUNE 2019

KEY FEATURES

- \$270 million Cataby project commissioned and first production of heavy mineral concentrate achieved.
- June quarter zircon/rutile/synthetic rutile (Z/R/SR) production up 10% to 169kt (Q1 2019: 154kt):
 - return to full capacity at the synthetic rutile kiln 2 in Capel following the major maintenance outage during the March quarter, in preparation for Cataby ilmenite feed; and
 - cessation of dredge operation at Sierra Rutile in February, partially offset by successful commissioning of the Gangama mine expansion.
- First half 2019 revenue per tonne up 30% from H1 2018:
 - 19% higher achieved zircon price and 22% higher achieved rutile price.
- First half Z/R/SR sales of 302kt (H1 2018: 439kt) with volumes down across each major product:
 - zircon sales affected by trade and geopolitical tensions impacting sentiment in key markets; and
 - rutile and synthetic rutile sales lower on available production; market conditions remain tight.
- Formally entered into the strategic partnership with IFC in June 2019.
- Sembahun early works at Sierra Rutile delayed beyond 2019 to revisit and broaden optimisation studies.
- \$142 million net debt at 30 June 2019 (\$2 million net cash at 31 December 2018). H1 2019 free cash outflow of \$65 million following capital expenditure of \$145 million and tax payments of \$144 million (mainly 2018 balancing payment). Net debt reflects payment of 2018 final dividend of \$79 million.

PRODUCTION AND SALES

	Jun-18 Quarter	Mar-19 Quarter	Jun-19 Quarter	Jun-18 YTD	Jun-19 YTD	Jun-19 YTD vs Jun-18 YTD
	kt	kt	kt	kt	kt	%
Production						
Zircon	77.3	87.2	72.7	158.9	159.9	0.6
Rutile	38.5	40.4	40.4	82.8	80.8	(2.4)
Synthetic Rutile	53.8	26.8	56.0	109.3	82.8	(24.2)
Total Z/R/SR Production	169.6	154.4	169.1	351.0	323.5	(7.8)
Ilmenite	111.8	42.8	82.2	210.8	125.0	(40.7)
Total Mineral Sands Production	281.4	197.2	251.3	561.8	448.5	(20.2)
Sales						
Zircon	99.4	65.6	67.7	189.6	133.3	(29.7)
Rutile	75.6	43.4	39.5	136.1	82.9	(39.1)
Synthetic Rutile	59.1	28.2	57.4	112.9	85.6	(24.2)
Total Z/R/SR Sales	234.1	137.2	164.6	438.6	301.8	(31.2)
Ilmenite	75.3	63.3	58.2	119.5	121.5	1.7
Total Mineral Sands Sales	309.4	200.5	222.8	558.1	423.3	(24.2)

REVENUE AND CASH COSTS

	Jun-18 Quarter	Mar-19 Quarter	Jun-19 Quarter	Jun-18 YTD	Jun-19 YTD	Jun-19 YTD vs Jun-18 YTD
						%
<i>\$ million</i>						
Z/R/SR revenue	319.5	231.1	276.0	566.6	507.2	(10.5)
Ilmenite and other revenue ¹	25.4	19.2	19.2	40.3	38.4	(4.7)
Mineral Sands Revenue²	344.9	250.3	295.2	606.9	545.6	(10.1)
<i>\$ million</i>						
Production cash costs of Z/R/SR				217.1	244.2	12.5
Ilmenite concentrate and by-product costs				7.8	7.7	(1.4)
Total Cash Costs of Production				224.9	251.8	12.0
<i>\$ per tonne</i>						
Unit Cash Production Costs per tonne Z/R/SR Produced ³				617	755	22.3
Unit Cost of Goods Sold per tonne Z/R/SR Sold				753	846	12.3
Revenue per tonne Z/R/SR Sold	1,365	1,686	1,677	1,292	1,681	30.1
Average AUD:USD cents	75.1	71.2	70.0	77.2	70.6	(8.5)

All currency is Australian dollar denominated unless otherwise indicated.

1. Ilmenite and other revenue include revenues derived from other materials not included in production volumes, including activated carbon products and iron concentrate. Iluka receives a royalty payment from its Mining Area C iron ore royalty. This is not reported as part of quarterly reports but is disclosed in the financial statements.
2. Represents FOB revenue.
3. Excludes ilmenite and by-products.

PRODUCTION

Australian Operations

At Jacinth-Ambrosia, South Australia, mining continued at Jacinth North ahead of the planned move to Ambrosia later in the year, which is progressing well and ahead of schedule. The mine continued with strong production as a result of good grades and recoveries from the Jacinth North pit. Over the first half of 2019, 240 thousand tonnes of heavy mineral concentrate (HMC) was transported to the Narngulu mineral separation plant (MSP) for final separation and export. Zircon production attributable to Jacinth-Ambrosia in the first half was 137 thousand tonnes.

The Cataby project in Western Australia has been successfully commissioned within budget. Cataby has produced 66 thousand tonnes of HMC in the quarter. Transport of HMC commenced over the period with magnetic material being trucked south to Capel for processing into ilmenite and then upgrading to synthetic rutile in the kiln, while non-magnetics (rutile and zircon) have been trucked north to the Narngulu MSP. The operation is focused on continued ramp up to targeted availability and plant throughput.

The Narngulu MSP operated at full capacity in the quarter processing Jacinth-Ambrosia material. In the quarter, final preparations were made to process non-magnetic feed from Cataby, with processing to begin in the second half of the year.

Synthetic rutile kiln 2 (SR2) at Capel, Western Australia, was restarted and returned to full capacity following the planned major maintenance outage in the first quarter. Production in the second quarter was 56 thousand tonnes of synthetic rutile (27 thousand tonnes in Q1 2019), largely from stockpiled ilmenite as the Cataby mine ramps up. The kiln is now expected to run for a full campaign of four years.

Sierra Leone Operations

Second quarter 2019 rutile production from Sierra Rutile was 30 thousand tonnes, for a total of 60 thousand tonnes in the first half. This result reflects the planned decommissioning of the Lanti dredge in February 2019.

At the Lanti mine, throughput in the quarter was mixed and runtime reduced as a result of mechanical failures. Detailed reviews of maintenance practices and outcomes were finalised during the period, and an external specialist maintenance team has been deployed to site in July to address stability and other issues and to train the permanent workforce.

While Gangama throughput was slightly below expectations, commissioning and ramp up of the Gangama expansion project occurred successfully during the quarter, with the plant reaching design rates in June.

Rutile production from Sierra Rutile is expected to be second half weighted with the completion and commissioning of the two expansion projects.

GROUP MINERAL SANDS PRODUCTION

	Jun-18 Quarter	Mar-19 Quarter	Jun-19 Quarter	Jun-18 YTD	Jun-19 YTD	Jun-19 YTD vs Jun-18 YTD
	kt	kt	kt	kt	kt	%
Zircon¹						
Jacinth-Ambrosia/Mid west WA	66.0	78.2	59.0	142.6	137.2	(3.8)
Cataby/South west WA	6.8	9.0	9.6	6.7	18.6	177.6
Sierra Leone	-	-	4.1	5.1	4.1	(19.6)
Idle Operations (US/Aus)	4.5	-	-	4.5	-	(100.0)
Total Zircon Production	77.3	87.2	72.7	158.9	159.9	0.6
Rutile						
Jacinth-Ambrosia/Mid west WA	8.8	9.3	8.2	19.6	17.5	(10.7)
Cataby/South west WA	2.0	1.7	1.9	2.1	3.6	71.4
Sierra Leone	27.6	29.4	30.3	61.1	59.7	(2.3)
Idle Operations (US/Aus)	-	-	-	-	-	n/a
Total Rutile Production	38.4	40.4	40.4	82.8	80.8	(2.4)
Synthetic Rutile (WA)	53.8	26.8	56.0	109.3	82.8	(24.2)
TOTAL Z/R/SR PRODUCTION	169.5	154.4	169.1	351.0	323.5	(7.8)
Ilmenite						
Jacinth-Ambrosia/Mid west WA	27.2	26.1	32.1	63.0	58.2	(7.6)
Cataby/South west WA	40.7	3.5	37.0	91.6	40.5	(55.8)
Sierra Leone	13.3	13.2	13.1	25.6	26.3	2.7
Idle Operations (US/Aus)	30.6	-	-	30.6	-	(100.0)
Total Ilmenite	111.8	42.8	82.2	210.8	125.0	(40.7)
TOTAL MINERAL SANDS PRODUCTION	281.3	197.2	251.3	561.8	448.5	(20.2)

¹ Iluka's zircon production figures include volumes of zircon attributable to external processing arrangements.

MINERAL SANDS MARKET CONDITIONS

Zircon Markets

First half year zircon sales of 133 thousand tonnes were lower than the corresponding period last year (190 thousand tonnes).

Iluka noted previously that first quarter sales were in line with seasonal norms and underlying demand was stable. In the second quarter, the negative business sentiment around continued political and trade tensions has impacted purchasing decisions. In China, the strict implementation of environmental regulations has maintained pressure on the manufacturing sector, affecting production and costs. As a result, zircon demand has declined, particularly in ceramics markets.

Standard Zircon has been more available in the market, as smaller concentrate producers have exported more material to China. This increased availability, as well as price pressure from downstream markets, has resulted in some shifting in demand from Premium Zircon to Standard Zircon.

Iluka has historically produced a Standard Zircon product but, since Murray Basin material has been exhausted, Iluka's production has largely been of premium product. Iluka maintains the ability to alter its mineral separation plant (MSP) settings and produce Standard Zircon at a slightly lower unit cost to Premium. In addition, Iluka can support current or future demand for Standard Zircon through the release of additional zircon in concentrate (ZIC) to compete with existing and potential concentrate producers. Iluka has the capacity to produce ZIC by re-processing stockpiled material at a rate of up to approximately 60 thousand tonnes per annum (zircon contained) through existing ancillary infrastructure located at Narngulu MSP at a very low cost.

Iluka expects its sales to be second half weighted, and may include more standard product. Due to the slower start to the year, Iluka expects sales volumes may be lower than production for the full year.

The weighted average received Premium Zircon and Standard Zircon price in the first half was US\$1,522 per tonne, up 19% from the same period of 2018. Iluka's Zircon Reference Price has been set at US\$1,580 per tonne for 12 months through to 30 September 2019.

If Iluka's H2 product mix includes more Standard Zircon and ZIC, the weighted average zircon price will decline. Standard Zircon has historically sold at a US\$50 – US\$100 per tonne discount to Premium Zircon, dependent on quality specifications.

Iluka expects to carry forward some inventory of higher value Premium Zircon and, as a consequence of the greater availability of concentrates in H1, Iluka also expects producer held inventories generally will rise over H2.

Titanium Dioxide Feedstock Markets

Market conditions in the high grade titanium market continued to be strong in the second quarter. High grade titanium dioxide feedstock (rutile and synthetic rutile) sales for H1 2019 were 169 thousand tonnes. Iluka was fully sold in the first half, with sales constrained by production volumes.

The pigment industry has shown further signs of strengthening in the second quarter with inventories moving back to seasonal norms and higher capacity utilisation rates. In China, demand for imported high grade ore (HGO) feedstocks is increasing as new domestic chloride production comes on line and ramps up.

Welding and sponge markets continue to perform well with demand for HGO feedstocks holding firm.

The average price of rutile, excluding HyTi, in H1 2019 was US\$1,107 per tonne. Iluka expects rutile and synthetic rutile prices to increase by 6-8% in the second half.

Iluka has had numerous inquiries for additional volumes of rutile and synthetic rutile for the second half of 2019 and customers are seeking to pull forward scheduled shipments. These are indications of tight supply, especially in the high grade markets, coupled with solid demand from the pigment and welding markets.

WEIGHTED AVERAGE RECEIVED PRICES

The following table provides weighted average received prices for Iluka's main products over the last three half year periods. Iluka's Annual Report, available at www.iluka.com contains further historical mineral sands price information.

	1 st Half 2018	2 nd Half 2018	1 st Half 2019
<i>US\$/tonne FOB</i>			
Zircon Premium and Standard	1,278	1,434	1,522
Zircon (all products, including zircon in concentrate) ¹	1,240	1,403	1,465
Rutile (excluding HYTI) ²	906	1,022	1,107
Synthetic rutile	Refer Note 3	Refer Note 3	Refer Note 3

Notes:

1. Zircon prices reflect the weighted average price for zircon premium, zircon standard and zircon-in-concentrate. The prices for each product vary considerably, as does the mix of such products sold period to period. In the first half of 2019 the split of zircon sand and concentrate by zircon sand-equivalent was approximately: 77%:23% (2018 full year: 79%:21%).
2. Excluded from rutile sales prices is a lower value titanium dioxide product, HYTI, that typically has a titanium dioxide content of 70 to 90%. This product sells at a lower price than rutile, which typically has a titanium dioxide content of 95%.
3. Iluka's synthetic rutile sales are underpinned by commercial offtake arrangements. The terms of these arrangements, including the pricing arrangements are commercial in confidence and as such not disclosed by Iluka. Synthetic rutile, due to its lower titanium dioxide content than rutile, is priced lower than natural rutile.

PROJECT UPDATES

Lanti dry and Gangama mine expansions, Sierra Leone

Iluka is progressing with the doubling of capacity of both the Gangama and Lanti dry operations from 500-600 tonne per hour to 1,000-1,200 tonne per hour. Capital expenditure for these expansions received Board approval in December 2017.

Progress on the expansion projects remains in line with schedule.

Construction of the second Gangama concentrator was completed on time and the plant has subsequently been commissioned successfully, and has been operating at design capacity since June 2019.

At Lanti, the re-purposing of the Lanti floating concentrator is progressing in accordance with plan. The floating plant was successfully beached in April and construction of infrastructure and electrical refurbishment is in progress. With work nearing completion, commissioning will commence in Q3 and ramp up is expected to be completed in Q4.

Sembehun mine, Sierra Leone

The Sembehun group of deposits are situated 20 to 30 kilometres north-west of the existing Sierra Rutile operations. Iluka plans to develop an additional mine at these deposits.

Since mid-2018 value optimisation studies have been underway in relation to the development of the Sembehun deposits to enable Sierra Rutile to achieve production capacity, over time, in excess of 300 thousand tonnes per annum, with first production from Phase 1 Sembehun from as early as the end of 2021. The studies have, as reported previously, been directed at investigating options around the timing, capacity and sequence of mining and concentrating options across the Sembehun deposits.

The definitive feasibility study (DFS) for Early Works (haul road, bridge and process water dam) and Phase 1 of developing Sembehun in line with the parameters described above, were scheduled to be completed in the second half of 2019. As detailed engineering and definitive estimates have been developed and the studies advanced, it is becoming evident that additional capital, beyond that estimated in mid-2018, would be required to execute the development.

In response, the company has determined the most prudent approach is to revisit and broaden the value optimisation studies to consider changes to the parameters described above, the mining technique and the mine sequencing (including prioritising minimisation of tailings storage capital expenditure), with a view to determining a development option which is both fit for purpose for Sierra Rutile and optimises the risk-return relationship.

As a consequence, some elements of design will revert to scoping and PFS level of definition. Once a clearer picture of the expected project capital cost is available, based on a revised development option, Iluka will provide additional guidance to the market.

Early Works, which were scheduled to commence in 2H 2019, will now be delayed until there is sufficient clarity on the revised development option. Further work is also required to finalise the Environmental and Social Impact Assessment.

Site management remain focused on implementing fully and realising gains from operational improvements and on successfully commissioning the Gangama and Lanti expansion projects, such that these meet operational stability expectations.

Mineral separation plant upgrade, Sierra Leone

Mineral separation plant equipment and general site upgrades are required to meet the additional capacity that will be generated from the Sembehun development. The upgrade will also assist in improving safety,

plant availability and metallurgical efficiencies. The value optimisation study, which is considering various plant configurations, continues.

Ambrosia mine move, South Australia

In October 2018, the Iluka Board approved funding of ~\$55 million to bring forward the mine move to the Ambrosia deposit to Q4 2019 (previously planned for 2022).

Construction has been completed and wet commissioning has begun with project completion expected ahead of the scheduled completion date in Q4 2019. Timing of the move to Ambrosia will be dependent on project completion and mining at the existing Jacinth deposit.

Approximately \$35 million was allocated to be spent on the initial move expenditure and is trending under budget. The remaining deferred capital of ~\$20 million is to be spent over 2020-21 and relates to tailings infrastructure and management.

Wimmera, Murray Basin, Victoria

The Wimmera project involves the mining and beneficiation of a fine grained heavy mineral sand ore body in the Victorian Murray Basin for the potential long term supply of zircon into the market along with rare earths. Technical challenges relating to purity and recovery of the valuable mineral have, in the past, impeded development of this style of deposit. Since 2015, Iluka has been undertaking technical development studies to overcome these challenges. To date the studies have yielded pathways to address successfully the challenges with recovery and purity, and a pre-feasibility study has commenced to assess the technical and economic viability, focussing on the WIM100 project area.

The PFS is progressing as planned. In Q2 2019, pilot plant test work of the rare earth refinery process successfully produced a rare earth mixture for customer assessment. Piloting of the zircon refining process will commence shortly. Environmental baseline studies are ongoing with the referral documentation for both state and federal environmental approvals for scoping in July 2019. Engagement with government, community and landholders is progressing.

The pre-feasibility study is scheduled for completion by the end of 2019.

Eneabba mineral sands recovery, Western Australia

The Eneabba mineral sands recovery project involves the extraction, processing and sale of an historical monazite-rich tailings stockpile that is currently stored in a mining void at Eneabba, Western Australia.

A Mineral Resource estimate for the stockpile has been released today, see ASX announcement *Eneabba Mineral Sands Recovery Project Updated Mineral Resource Estimate* for full details.

The Monazite Tails Mineral Resource is estimated to contain a total Mineral Resource 1.0Mt material with a heavy mineral (HM) grade of 82.7%, containing 827kt of HM (Measured Resource of 0.84Mt grading 83.7% HM and an Indicated Resource of 0.16Mt grading 77.5% HM). Mineral Assemblage (as a percentage of HM) is 26% zircon, 20% monazite, 1.2% xenotime and 34% ilmenite. This Mineral Resource estimate represents a 107% increase in the contained HM tonnage over the previously reported estimate (ASX announcement *Updated Mineral Resource and Ore Reserve Statement*, released 20 February 2017).

The feasibility study was completed in Q2 2019. Subject to finalisation of offtake agreements and some regulatory approvals, construction of the recovery plant is expected to commence in Q4 2019 with commissioning in H1 2020 and first sales in Q3 2020.

Atacama, South Australia

Atacama is a satellite deposit to Iluka's existing operation at Jacinth-Ambrosia. Iluka has commenced a project to evaluate the potential for this deposit to add material zircon production from 2022.

A pre-feasibility study commenced in Q4 2018 and options have been identified to process the Atacama deposit economically by utilising the existing infrastructure at the Jacinth-Ambrosia mine site. External stakeholder consultation has commenced. Completion of this stage of works is targeted for Q4 2019.

SR1 restart, Western Australia

A scoping study is underway on the potential restart of Iluka's synthetic rutile (SR) 1 kiln in Capel, Western Australia. The kiln is adjacent to the currently operational SR2 kiln and has capacity to produce ~120 thousand tonnes of synthetic rutile per annum.

Project work currently includes engineering and execute readiness planning. Iluka is considering and progressing a range of internal and external ilmenite feed options. Approval and timing of the restart is subject to determining appropriate feed source(s) and commercial arrangements.

Balranald, Murray Basin, New South Wales

Balranald and Nepean are two rutile-rich deposits in the northern Murray Basin, New South Wales. A drilling programme to provide more detailed understanding of the deposit mineralisation was completed in late 2018. The results were positive and have increased Iluka's confidence. The proposed final trial is currently being planned and is designed to determine whether the underground mining and backfilling technology is economically viable in a continuous mining and processing environment. This trial is subject to Board approval and is expected to be considered by the Board in August.

Puttalam (PQ), Sri Lanka

The Puttalam Quarry (PQ) deposit is a large sulphate ilmenite deposit, located approximately 30 kilometres from the town of Puttalam in north western Sri Lanka.

A pre-feasibility study has been completed. Following the devastating Colombo terrorist attacks in April, Iluka withdrew its project team from the country. Since this time, Iluka has re-commenced limited engagement activities with the government on legal and investment terms for the development. However, as expected given the circumstances in country, progress has been slower over the period.

EXPLORATION

Expenditure on exploration and evaluation charged to the profit and loss account for the June quarter 2019 was \$2.9 million with expenditure in H1 of \$4.8 million (H1 2018: \$4.4 million).

Canada

Iluka continued to fund Societe d'Exploration Miniere Vior Inc. ("Vior") to undertake greenfield exploration for high grade rutile/ilmenite deposits in the Foothills and Grand Duc project areas in Quebec.

Land access and approvals progressed with diamond drilling of rutile-ilmenite targets to begin in July.

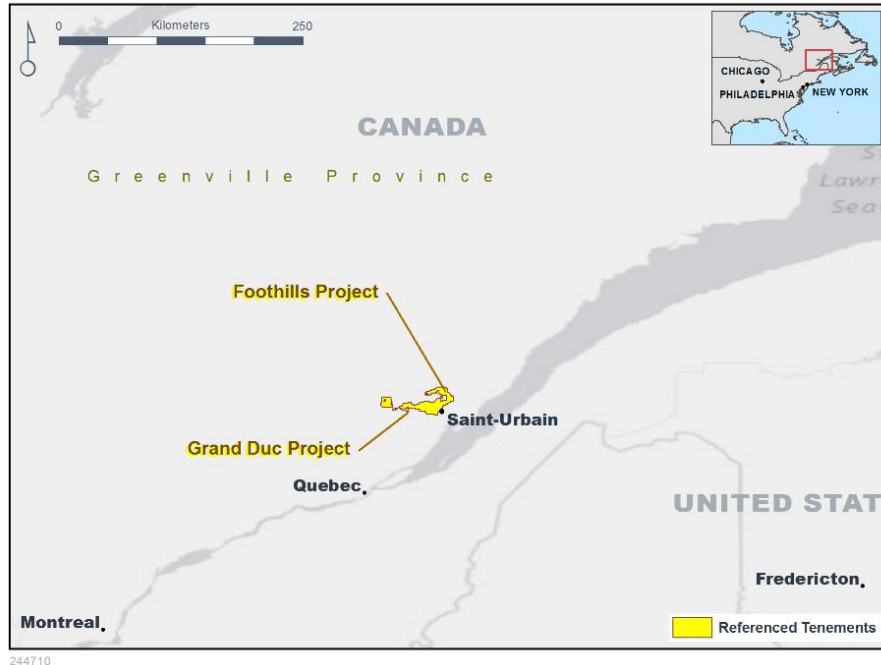


Figure 1: Grand Duc, Foothills and Big Island Lake Projects, Quebec, Canada

CORPORATE UPDATES

Multi Option Facility Agreement (MOFA)

In July 2019, Iluka completed a refinancing of its Multi Option Facility Agreement, which comprises a series of five year committed unsecured bilateral revolving credit facilities, with a number of leading domestic and foreign banks. The refinancing has resulted in improved margins and fees. All facilities now mature in July 2024. Following an assessment of its medium term liquidity requirements, the Company reduced the size of its facilities to approximately \$520 million from approximately \$620 million.

International Finance Corporation (IFC) Partnership

In June, Iluka formally established the strategic partnership with the International Finance Corporation (IFC) in Sierra Leone, with the agreement practically completing and with first subscription occurring late June.

As announced previously, IFC's investment is made in two parts:

- initial investment US\$20 million for a 3.57% stake in Sierra Rutile (which has now occurred); and
- further investment of US\$40 million to increase its stake to 10% to occur if or when Iluka approves the construction of early works for the Sembahun project and upon completion of the related Environmental and Social Impact Assessment.

Partnering with IFC is a logical step for Iluka in Sierra Leone. IFC has unparalleled expertise with respect to community and stakeholder relations in developing countries, which will complement Sierra Rutile's activities in these areas.

Executive Changes

Iluka has made a number of changes to its executive team structure following the departure of Simon Hay (previously Head of Resource Development) in June.

- Matthew Blackwell has been appointed Head of Major Projects, Engineering and Innovation. Matthew joined Iluka in 2004 and has held a variety of roles including Head of Marketing and Procurement and General Manager US Operations.
- Christian Barbier has been appointed to Head of Marketing. Christian joined Iluka in 2016 and was previously General Manager Zircon Sales.

Given the commencement of the new mine at Cataby and the range of development options in Australia, the Chief Operations Officer role, previously occupied by Steve Wickham, has been restructured into 3 Divisional Heads, all reporting directly to Tom O'Leary: Dan McGrath, General Manager Cataby and Southwest; Shane Tilka, General Manager Jacinth Ambrosia and Midwest; and Rob Hattingh, Chief Executive Officer, Sierra Rutile.

Tim Bartholomew has been appointed as General Manager, Strategic Development and Closure, and has also joined the executive team. Steve Wickham (formerly Chief Operating Officer) has moved to a Transition Advisor role and will leave the company in 2020. Steve has been with Iluka for 11 years in a number of operational leadership roles, and has made a significant contribution to Iluka's operations and culture during this time.

Full profiles of Iluka's executive team can be found at:
www.iluka.com/about-iluka/leadership/executive-team

2019 Half Year Results

Iluka is scheduled to release its 2019 Half Year Results on 21 August 2019.

June Quarterly Teleconference Details

An investment conference call will take place at **7.00am (AWST)** on 24 July 2019. Dial in numbers are listed below. Please quote passcode ID: **3284766**.

For locations within Australia dial toll-free **1800 123 296**, or toll +61 (0)2 8038 5221.

If you are calling from another country, please use one of the following toll-free dial-in numbers:

Hong Kong	800 908 865	Japan	0120 477 087
Canada	1855 5616 766	Singapore	800 616 2288
United Kingdom	0808 234 0757	United States	1855 293 1544

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APPENDIX 1 - OPERATING MINES PHYSICAL DATA

6 Months to 30 June 2019

	Jacinth- Ambrosia / Mid west	Catoby / South west	Australia Total	Sierra Leone	Idle Assets	Group Total
Mining						
Overburden Moved kbcm	241	6,144	6,385	-	-	6,385
Ore Mined kt	4,891	4,451	9,341	4,144	-	13,486
Ore Grade HM %	6.7%	0.0%	3.5%	3.2%	-	3.4%
VHM Grade %	6.0%	0.0%	3.1%	2.5%	-	2.9%
Concentrating						
HMC Produced kt	291	66	357	123	-	480
VHM Produced kt	257	2	259	84	-	343
VHM in HMC Assemblage %	88.3%	3.2%	72.5%	68.2%	-	71.4%
Zircon	45.8%	1.2%	37.5%	3.4%	-	28.8%
Rutile	8.5%	2.0%	7.3%	45.5%	-	17.0%
Ilmenite	34.0%	0.0%	27.7%	19.3%	-	25.5%
HMC Processed kt	244	86	330	125	-	456
Finished Product ¹ kt						
Zircon	137.2	18.6	155.8	4.1	-	159.9
Rutile	17.5	3.6	21.0	59.7	-	80.8
Ilmenite (saleable/upgradeable)	58.2	40.5	98.7	26.3	-	125.0
Synthetic Rutile Produced kt	-	82.8	82.8	-	-	82.8

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.

VHM Grade % refers to percentage of valuable heavy mineral (VHM) - titanium dioxide (rutile and ilmenite) and zircon.

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 a mineral processing plant.

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

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

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

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

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

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

Typically, 1 tonne of upgradeable ilmenite will produce between 0.56 and 0.60 tonnes of synthetic rutile. Iluka also purchases external ilmenite for its synthetic rutile production process.

¹ Finished product includes material from heavy mineral concentrate (HMC) initially processed in prior periods.

APPENDIX 2 - PRODUCTION SUMMARIES

