铁货 IRC

# IRC Limited

HONG KONG STOCK CODE: 1029

# ANNUAL REPORT 2018


## ABOUT US

IRC is the largest iron ore mining operator exclusively in the Russian Far East. Our world-class expertise focuses on producing the high-quality iron ore concentrate with long term customer relationship in China and Russia.

## WHY IRC

IRC is unique in the iron ore market due to its competitive advantages, namely superior geology and direct access using established world-class infrastructure to China, the world's largest iron ore market.

## 2019 AND BEYOND

K&S mine, our 3.2 million tonne per annum project, has started commercial production and will reach full capacity soon. The mine produces premium 65% iron ore products at some of the most competitive industry costs levels. In long term, we will have optionalities of doubling the group's production capacity and beyond by developing K&S Phase II and other exploration projects.

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# CHAIRMAN'S STATEMENT

***Dear Shareholders and Stakeholders,***

It is both an honour and a privilege to present this Annual Report to you, my first as the Chairman of IRC.

In 2018, IRC's performance has been positive and our progress made during this challenging year is marked by increased EBITDA and a US$68.2 million net profit, as well as by both the continued ramping up of K&S and the successful refinancing of the ICBC loan.

Major geopolitical surprises marked the year 2018 and economic growth stayed subdued around the world. The changes in the political landscape and increased economic and market volatilities in 2018 have made it a challenging year. The risks of a possible trade war between the U.S. and China, the extent of Brexit and European instability, the current U.S. administration, the prospect of U.S. interest rate rises, and global political unrest brought significant uncertainties to the commodity markets and, inevitably, IRC was affected. Against this backdrop, our strategy focuses on improving both productivity and profitability. During 2018, we managed to increase production and our underlying results improved, even though cash resources were tight. K&S is expected to be operating at a full capacity of 3.2 million tonnes per annum soon and, to capitalise on economies of scale, the mine has the potential to further expand its annual capacity by 40% to 4.5 million tonnes. While improving the top line, at the same time, we will continue to control costs wherever possible and the Gazprombank refinancing will assist us in this.

## 45% increase in Sales Volume, IRC recorded US$68 million Net Profit

As K&S continued to ramp up its production, sales volume increased by 45% in 2018 and, in order to diversify the customer base to achieve better prices and sales terms, sales were made to customers in Russia as well as China.

EBITDA is a key performance indicator for IRC and the improved sales volume was partially responsible for EBITDA increasing by 42% to US$28.5 million.

In turn, the successful ramping up of K&S and its strong operating performance supported a reversal of asset impairment provisions of US$90.5 million and accordingly, IRC reports a net profit of US$68.2 million for the year 2018.

## Continuous Ramping-Up, Production Volume Increased

In 2018 total production volume increased by 43% compared to the previous year and, in December 2018, K&S achieved a record-breaking monthly production by operating at an average capacity of 84%.

This was more than satisfactory when account is taken of the geopolitical headwinds we faced. In the earlier part of 2018, K&S's operation was affected by the railway congestion in the region and production was also disrupted by issues with the mining contractor and the need to carry out certain planned rectification and maintenance works. There were some issues with the Drying Unit in the first quarter of 2019, but they have now been mitigated. K&S is currently operating at a capacity of about 86% and is on track to operate at full capacity soon.

## Cost Control

The increasing production volume provided economies of scale at K&S and in 2018 we achieved a cash cost of US$50.2 per tonne; an increase of 3.7%, which is in line with a general inflation rate of about 3% in Russia in the same period.

K&S is not yet operating at full production capacity and so the operating cost in 2018 has not yet reached its optimal level. Therefore, the costs achieved in 2018 do not indicate the level of costs at the time when the mine is fully ramped up.

In 2019 and going forward, K&S continues to face the challenges of inflation in Russia, the delay in the construction of the Amur River Bridge (due to be operational later in 2019) and the increasing mining cost; all of which are beyond our control. We will continue our endeavours to reduce costs and to make K&S one of the lowest-cost mines for the production of 65% Fe.

## Benefits from Commodity and Currency Markets

Platts 65% iron ore spot price remained resilient and averaged US$90 per tonne, outperforming the pessimistic market forecasts made at the beginning of the year. This was mostly caused by global political and macroeconomic factors causing increased volatility in the market price of iron ore. Media reports say that the Chinese government is tightening its pollution control policy and this has led to some Chinese steel manufacturers opting to use as feedstocks the higher grade 65% iron ore that we produce. This switch is reflected in the price premium spread for 65% Fe over 62% Fe, for which the gap widened in the middle of 2018 and narrowed again towards the end of the year.

In terms of currency, the Rouble, which has been depressed by American sanctions, continued to remain weak against the US dollar in 2018, with the currency depreciating to an average of RUR63 against the dollar. The weakness in the Rouble has a positive impact on the Group's operating margins, as the Group's operating costs are mainly denominated in Roubles and revenues mainly in US Dollars.

IRC is listed in Hong Kong with its operations mainly located in the Russia Far East. Most of the Group's customers and suppliers are based in China or Russia. K&S has not been subject to any direct negative impact from the sanctions against Russia.

## The Sino-Russian Bridge

After years of construction, according to the media, both ends of the Amur River Bridge have now been connected and the bridge is expected to be operational later in 2019. Construction of this cross-border bridge between Russia and China officially started in 2016, following 28 years of negotiations. The 2,209-metre-long bridge will become the first railway bridge between the two countries and is expected to facilitate trade between them from which IRC will benefit. After the Bridge is operational, the transportation distance between Far Eastern Russia and northern China will be reduced and the cost of transportation to China for IRC/K&S may be reduced by up to US$5 per tonne. Apart from shortening the shipment time to the Chinese customers, logistic efficiency will also be improved as the time needed to turnaround the wagons are reduced. It should also alleviate railway congestion in the region.

## Restarting Kuranakh

Kuranakh is the first vertically integrated titano-magnetite operation in Russia, designed, built and managed by IRC. It is currently under a care and maintenance programme. Following the recent positive price movements and the stabilisation in the bulk commodity market, we are conducting a strategic review to consider restarting the mine. If Kuranakh recommences operation, it could provide the necessary feedstock for the production of vanadium products. In addition, the demand for Ilmenite is again strong and this could also be commercially attractive for us.

## New Gazprombank Facility – Improved Cash Flow Position

We wish to express our gratitude to ICBC and Sinosure for providing the initial debt financing to IRC for the construction of K&S. After the project commenced operation, it has always been our intent to refinance this project finance facility and I am delighted that we have finalised the refinancing arrangement with Gazprombank. The principal repayments of the Gazprombank Facility are aligned with the ramping up of K&S, thereby improving the cash flow position of the Group and providing a stable financial platform to consolidate our market position.

We are also grateful of the support from our largest shareholder, Petropavlovsk for providing the bridge loans and continuing to be the guarantor of the facility.

## Outlook and Beyond

Overall, despite the challenges of the past year, I believe that IRC has made good progress. We are fortunate in achieving good results with the full support of a dedicated team. On behalf of the Board, I would like to express my appreciation and sincere thanks for the leadership of our management team, and for the hard work and dedication of the entire Group. It goes without saying that IRC could not have achieved as much as it has done without the support of our shareholders and also the significant input of my predecessor as Chairman, Jay Hambro. The Board and I extend our thanks to them all and wish Jay great success in his new ventures.

There are conflicting views about the market conditions. Some will have it that things will not get any easier in 2019. The trade conflicts between the U.S. and China, lending restrictions in China, and the cyclical slowdown in the automotive industry in the developed markets may affect the global demand for steel. Others will tell you that the world market for steel – particularly in India, Africa and the Asean block will mean that supply remains tight. Whichever is correct, I believe that IRC can navigate these confusing tides and so I became a shareholder of IRC in December 2018. This is an interesting time to have joined the Group and, with my almost 40-year experience and extensive networks in the commodities business, I look forward to leading the Board to unlock the true potential of IRC.

**Peter Hambro**
*Chairman*

# CEO AND CFO STATEMENT & RESULTS OF OPERATIONS

***Dear Shareholders and Stakeholders,***

During 2018, our ramp up progress at K&S faced various challenges and the iron ore market remained volatile. Against this backdrop, we had a good momentum in the development of our operations and we are pleased to report improved results of IRC.

Commissioning a sizeable project is never a straight-forward task and there are bound to have various difficulties and challenges. The ramping up of K&S is no exception. In 2018, apart from normal teething issues, we faced the challenges of railway congestion. The railway usage, which was originally already burdened by the high traffic of thermal coal shipments during the winter, became more congested due to the unusually heavy torrential rain in the region. As there were insufficient wagons arriving at K&S for timely delivery of products as a result of the railway congestion, the production at K&S was slowed down after its storage warehouse was full. The problem was not fully resolved until the first half of 2018. At the same time, the production process at K&S was not without its problems. The Drying Unit as well as other equipment and machinery were not functioning as well as expected. These issues were mainly caused by the poor workmanship of the K&S contractor and the site team has to put in a lot of effort to remedy these production issues. Despite the aforesaid issues, K&S managed to increase the production in 2018 to an average capacity of 70%, 21% points higher than that of last year.

K&S produces 65% Fe which is essentially a different market segment to the inferior 62% Fe. In 2018, the average price premium for the 65% Fe over the 62% Fe amounted to US$21 per tonne, a testimony that the market favoured premium quality Fe which has environmental advantages. The 65% Fe price recorded an average of US$90 per tonne in 2018 which was US$3 per tonne higher than that of last year. It is however a market practice that discounts are offered to customers. While the price premium is favourable, the customers of K&S are also negotiating for greater discounts.

The higher capacity of K&S allowed the Group to report an improvement in revenue. During the year, we recorded a total revenue of US$151.5 million, representing a 38.7% increase over the same period last year. The Group continued to apply stringent cost-control measures. Despite the higher mining cost and the Russian inflation, cash cost only increased marginally by 3.7% to US$50.2 per tonne. Besides, on the back of an increased operating scale, the Group's general administration expenses, excluding non-cash items, were maintained at a level similar to that of last year.

The stronger revenue coupled with the tight cost-control resulted in an increase in EBITDA of 42.1% to US$28.5 million. 2018 also saw IRC reversing an asset impairment provision of US$90.5 million, thanks to the strong operating performance of K&S. As a result, net profit for 2018 amounted to US$68.2 million. The Group's underlying results, excluding the impact of impairment provision and reversal, improved by 11.3%.

Apart from the good performance on sales and cost management, on the corporate level, we are delighted to have completed the refinancing arrangement with Gazprombank, one of the leading banks in Russia. The purpose of the Gazprombank Facility is to repay the bank loan from ICBC in full of approximately US$169 million and to use the remaining amounts for the following purposes: (i) to repay the bridge loans advanced by Petropavlovsk in full of approximately US$57 million; (ii) to finance K&S's working capital in the amount of approximately US$8 million and (iii) to repay the guarantee fee of approximately US$6 million owed by the Group to Petropavlovsk in respect of the ICBC Facility. We look forward to the exciting opportunity of working with Gazprombank.

The governor of the Jewish Autonomous Oblast (Russian Far East Area) recently confirmed that the construction of the Amur River Bridge is scheduled for completion in July. The bridge is expected to be operational later in 2019. When this first railway bridge between Russia and China is in use, the transportation cost of K&S for delivery to the Chinese customers could be reduced by up to US$5 per tonne, providing significant contribution to our bottom line.

As reported in the media, in early 2019, there had been an unfortunate accident at an iron ore mine in Brazil. The incident serves as a reminder of the devastating effect of an accident and IRC must at all time keep the guard up. K&S has a good track record of HSE standard and we are pleased to have achieved a LTIFR of nil in 2018. We shall continue our effort in maintaining the high safety standard.

We expect that K&S will be operating at full capacity soon after the remaining bottlenecks are resolved. The economies of scale will bring positive contributions to the Group. IRC's performance is subject to movements in market iron ore price and foreign currency exchange rate. As always, a cautious approach will be taken to manage these risks. We will endeavour to strengthen our balance sheet and to improve our bottom line for the benefits of our stakeholders and shareholders.

Last but not least, we thank our team, shareholders and stakeholders for their continuous support.

| **Yury Makarov** | **Danila Kotlyarov** |
|---|---|
| *Chief Executive Officer* | *Chief Financial Officer* |

CEO AND CFO STATEMENT & RESULTS OF OPERATIONS (CONTINUED...)

The table below shows the consolidated results of the Group for the year ended 31 December 2018 and 2017:

| | For the year ended 31 December | | |
|---|---|---|---|
| | **2018** | 2017 | Variance |
| **Key Operating Data** | | | |
| Iron Ore Concentrate | | | |
| — Production volume (tonnes)* | **2,234,517** | 1,563,066 | 43.0% |
| — Sales volume (tonnes)* | **2,223,945** | 1,539,146 | 44.5% |
| — Average price (US$/tonne)* | **68^** | 70^ | (2.9%) |
| **Consolidated Income Statement (US$'000)** | | | |
| Revenue | | | |
| Iron Ore Concentrate | **150,998** | 108,212 | 39.5% |
| Engineering Services | **551** | 1,053 | (47.7%) |
| Total Revenue | **151,549** | 109,265 | 38.7% |
| Site operating expenses and service costs | **(140,653)** | (96,221) | 46.2% |
| General administration expenses | **(10,435)** | (9,871) | 5.7% |
| Reversal of impairment losses | **90,483** | 129,614 | (30.2%) |
| Net operating profit | **90,944** | 132,787 | (31.5%) |
| Allowance for financial asset measured at amortised cost | **(7,741)** | – | N/A |
| Other income, gains and losses | **6,811** | 2,248 | >100% |
| Financial expenses | **(21,679)** | (22,410) | (3.3%) |
| Profit before taxation | **68,335** | 112,625 | (39.3%) |
| Income tax (expense) credit | **(130)** | 590 | N/A |
| Profit for the year | **68,205** | 113,215 | (39.8%) |
| Non-controlling interests | **30** | 39 | (23.1%) |
| Profit for the year attributable to owners of the Company | **68,235** | 113,254 | (39.8%) |
| **Underlying Results (US$'000)** | | | |
| EBITDA | | | |
| — Mine in production | **32,969** | 27,895 | 18.2% |
| — Group | **28,480** | 20,039 | 42.1% |
| Underlying loss | **(14,507)** | (16,360) | (11.3%) |

* Based on wet metric tonne.

^ If the average selling price is calculated based on dry metric tonne and, before taking into account the negative price variance of about $0.7 per tonne due to hedging, average selling price was about US$73 per tonne for the year ended 31 December 2018 (31 December 2017: US$78 per tonne).

## THE UNDERLYING RESULTS OF THE GROUP

IRC's operating results are mainly derived from the mining operations of K&S. The Group manages its operations with principal reference to the underlying operating cash flows and recurring earnings. However, as with most of IRC's international industry peers, the Group's income statement sometimes includes certain material non-cash items which are non-operating and non-recurring in nature and should be considered separately.

In 2018, the Group's statement of profit or loss includes the following non-cash items:

– The strong operating performance of K&S supported a reversal of asset impairment in relation to the K&S mine of US$90.5 million; and

– The Group has a net receivable from General Nice and, due to a winding up order being made by the High Court of Hong Kong against General Nice, it is unlikely that the Company will recover the receivable. Consequently, a one-off, non-cash provision has been charged to the statement of profit or loss in 2018.

To facilitate a better understanding of the Group's operating results, the calculation of the Group's underlying results, which excludes the effect of the above non-cash items, is set out below:

| | For the year ended 31 December | | |
|---|---|---|---|
| **US$'000** | **2018** | 2017 | Variance |
| Profit attributable to owners of the Company | **68,235** | 113,254 | (39.8%) |
| Impairment provision for the receivable from General Nice and other adjustments | **7,741** | – | N/A |
| Reversal of impairment losses | **(90,483)** | (129,614) | (30.2%) |
| Underlying loss for the year | **(14,507)** | (16,360) | (11.3%) |

The increase in revenue from higher production capacity of K&S and stringent costs control were the main contributors for the improvement in Underlying Results.

### Iron ore concentrate

IRC's revenue improved significantly mainly due to the positive contribution from K&S mine. The mine continues to increase sales and production volumes since the commencement of commercial production in 2017. The high-grade iron ore market gradually improved in 2018, The average market price of 65% Fe grading iron ore concentrate increased by 3.4% to c. US$90 per tonne. Compared to last year, the sales of iron ore concentrate from K&S increased by 44.5% to 2,223,945 tonnes. As a result of the increased sales volume, the revenue from sale of iron ore concentrate recorded US$151.0 million, representing an increase of 39.5%.

### Engineering Services

In 2018, engineering services revenue of US$0.6 million from Giproruda, the small engineering services division of the Group remained stable when comparing with last year.

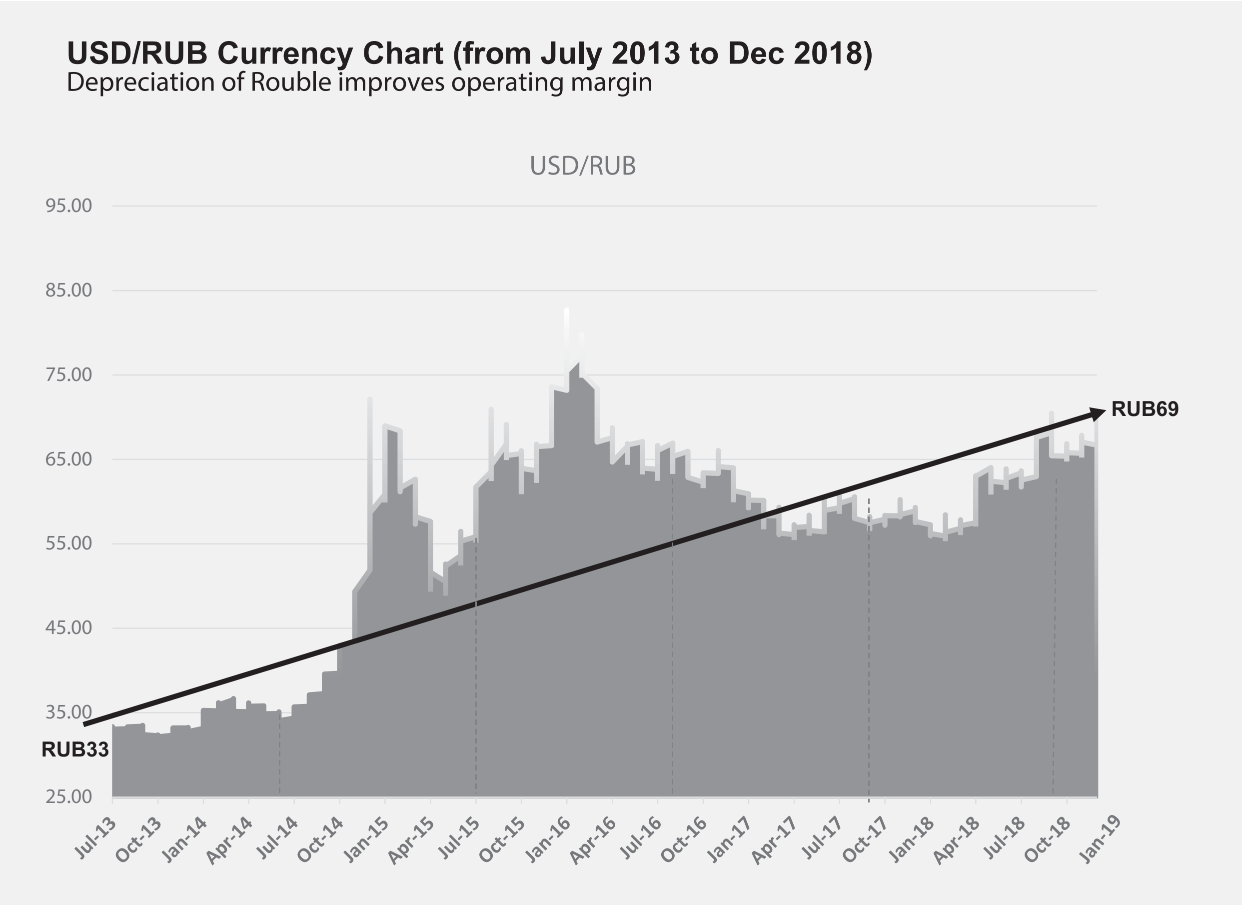
## SITE OPERATING EXPENSES AND SERVICE COSTS

Same as previous year, the site operating expenses and service costs in 2018 mainly represent the mining and operating expenses incurred by the Group's current sole mine in production, the K&S operation. K&S commenced commercial production in 2017 and IRC started recognising its operating results in the income statement since the beginning of 2017. K&S is progressively conducting the ramp up progress for the plant in order to reach full production capacity level. As a result, there is an increase in site operating expenses and service costs to US$140.7 million in 2018 (31 December 2017: US$96.2 million) to match with the increased scale of operation. The table below are the details of the key cash cost components:

| | **2018** | | **2017** |
|---|---|---|---|
| | **Total cash cost US$ million** | **Cash cost per tonne US$/t** | Cash cost per tonne US$/t |
| Mining | **33.8** | **14.7** | 12.6 |
| Processing | **24.5** | **10.6** | 12.0 |
| Production overheads, site administration and related costs | **25.6** | **10.9** | 10.5 |
| Transportation to customers | **36.8** | **16.5** | 16.6 |
| Movements in inventories and finished goods | **(5.7)** | **(2.5)** | (3.3) |
| Net cash cost | **115.0** | **50.2** | 48.4 |

The cash cost per tonne in 2018 is slightly higher than that of last year mainly due to the increased mining cost of K&S as a result of a higher stripping ratio. Nevertheless, the cash cost only increased by 3.7% which is in line with the general inflation in Russia of approximately 3% in 2018. When the production capacity of K&S reaches 100% and the Amur River Bridge is operational (due to be in use later in 2019), the cash cost of K&S is expected to reduce. In addition, the Group continues to implement stringent cost control measures with the aid of Russian Roubles devaluation. The Russian Roubles depreciated significantly since December 2014 and the currency remained weak in 2018. While the Group's income is mainly US Dollars denominated and therefore unaffected by the Roubles depreciation, the Group's operating costs, which are mostly denominated in Roubles, would be reduced as Roubles depreciates.

The chart below shows the trend of depreciation on Rouble between July 2013 to December 2018:




* Source: Bloomberg (as of 31 December 2018)

## SEGMENT INFORMATION

The mine in production segment generated an EBITDA of US$33.0 million (2017: US27.9 million), following the increase in production and sales of K&S. After taking into account the reversal of asset impairment and depreciation charge, the segment reports a profit of US$102.6 million in 2018. (31 December 2017: US$143.3 million) The Kuranakh operation continues to be under care and maintenance and has no production during 2018. The "Engineering" segment recorded a loss of US$0.9 million due to a decrease in consultancy billings.

## GENERAL ADMINISTRATION EXPENSES

Special attention continues to be paid to controlling administrative costs. The successful implementation of the cost controls continued to provide benefits, with the Group's 2018 general administration costs excluded non-cash items, such as share-based payments and depreciation, being US$8.5 million which is similar to last year (31 December 2017: US$8.3 million) although our scale of operation increased.

## IMPAIRMENT LOSSES REVERSED

During 2018, reflecting on the successful operation of the K&S mine and the increase of market iron ore price, a partial impairment reversal of US$90.5 million (2017: US$129.6 million) was made in 2018.

## ALLOWANCE FOR FINANCIAL ASSETS MEASURED AT AMORTISED COST

General Nice has an outstanding commitment to make an equity investment in IRC and has agreed to pay interest on the outstanding committed amount. IRC has been recording the outstanding interest, net of any liabilities due to General Nice, as a receivable. A winding up order was made against General Nice on 16 July 2018 by the High Court of Hong Kong and it is unlikely that the Company will recover the receivable and consequently a one-off, non-cash provision has been made.

## OTHER INCOME, GAINS AND LOSSES

The other income and gains of US$6.8 million mainly represents the gains in foreign exchange, assets disposals and rental income. (31 December 2017: US$2.2 million)

## FINANCIAL EXPENSES

Financial expenses of US$21.7 million, mainly represent the interest expenses of the ICBC project finance loan and the bridge loans from Petropavlovsk, as well as the accrual of the loan guarantee fee.

The financial expenses can be analysed as follows:

| | For the year ended 31 December | |
|---|---|---|
| **US$'m** | **2018** | 2017 |
| Interest expense on borrowings | **14.8** | 13.4 |
| Loan guarantee fee | **4.0** | 4.1 |
| Facilitation fees for loan restructuring and other borrowings | **0.4** | 2.7 |
| Unwinding of discount on environmental obligation and others interest income | **2.5** | 2.2 |
| Financial expenses | **21.7** | 22.4 |

## INCOME TAX (EXPENSE) CREDIT

The income tax expense of US$0.1 million (31 December 2017 income tax credit: US$0.6 million) mainly represents the tax payments and deferred tax expense.

## PROFIT ATTRIBUTABLE TO THE OWNERS OF THE COMPANY

The improvement of the iron ore concentrate price and increasing production volume of K&S contributed to the positive operating results of the Group. In addition, after taking into account the reversal of impairment charges in 2018, the net profit attributable to the owners of the company amounted to US$68.2 million.

## CASH FLOW STATEMENT

The following table summaries the key cash flow items of the Group for the year ended 31 December 2018 and 31 December 2017:

| | For the year ended 31 December | |
|---|---|---|
| **US$'000** | **2018** | 2017 |
| **Net cash generated from operations** | **28,924** | 21,718 |
| Interest paid | **(12,957)** | (10,244) |
| Facilitation fees for loan restructuring and other borrowings | **(800)** | (4,000) |
| Capital expenditure | **(3,374)** | (6,784) |
| Repayment of bank borrowings and loan commitment fees | **(8,721)** | (21,794) |
| Other payments and adjustments, net | **(5,432)** | (1,241) |
| **Net movement during the year** | **(2,360)** | (22,345) |
| **Cash and bank balances (including time and restricted deposits)** | | |
| — At 1 January | **10,974** | 33,319 |
| — At 31 December | **8,614** | 10,974 |

The net cash generated from operations amounted to US$28.9 million (31 December 2017: US$21.7 million), mainly due to increase cash inflow from the K&S mine. Capital expenditure of US$3.4 million was incurred mainly on the K&S mine while it is in the process of ramping up its production. A net loan repayment of US$8.7 million mainly represents the repayment of the ICBC loan. Other payments and adjustments increased to US$5.4 million mainly due to the increase of income tax payment and effect of foreign exchange rate changes.

## LIQUIDITY, FINANCIAL AND CAPITAL RESOURCES

### Share capital

There was no change in the share capital of the Company in 2018.

### Cash Position and Capital Expenditure

As at 31 December 2018, the carrying amount of the Group's cash, deposits and bank balances was approximately US$8.6 million (31 December 2017: US$11.0 million). The decrease in cash balance is mainly due to the repayment of the principal and interest of the ICBC loan as mentioned. The decrease was also partly attributable to CAPEX spent on ramping up K&S operation.

## Exploration, Development and Mining Production Activities

For the year ended 31 December 2018, US$124.3 million (31 December 2017: US$86.1 million) was incurred on development and mining production activities. No exploration activity was carried out in 2018 and 2017. The following table details the capital and operating expenditures in 2018 and 2017:

| | For the year ended 31 December 2018 | | | For the year ended 31 December 2017 | | |
|---|---|---|---|---|---|---|
| **US$'m** | **Operating expenses** | **Capital expenditure** | **Total** | Operating expenses | Capital expenditure | Total |
| **K&S development** | **118.2** | **5.7** | **123.9** | 79.4 | 6.7 | 86.1 |
| **Exploration projects and others** | **0.1** | **0.3** | **0.4** | (0.3) | 0.3 | – |
| | **118.3** | **6.0** | **124.3** | 79.1 | 7.0 | 86.1 |

The table below sets out the details of material new contracts and commitments entered into during 2018 on a by-project basis. The amount was relatively small, reflecting the fact that the K&S mine is close to ramp-up completion.

| | | For the year ended 31 December | |
|---|---|---|---|
| **US$'m** | **Nature** | **2018** | 2017 |
| K&S | Purchase of property, plant and equipment | **0.7** | 0.6 |
| | Sub-contracting for excavation related works | **6.2** | – |
| Others | Other contracts and commitments | **0.7** | 0.7 |
| | | **7.6** | 1.3 |

## Borrowings and Charges

As at 31 December 2018, the Group had gross borrowings of US$223.7 million (31 December 2017: US$235.2 million). Most of the Group's borrowings were denominated in US dollars. US$54.1 million represents the Bridge Loan from Petropavlovsk and the rest represents the long-term borrowing drawn from the ICBC loan facility which is guaranteed by Petropavlovsk. The Group's weighted average interest rate increased to 8.0% (31 December 2017: 6.4%) per annum mainly due to higher interest rates of the bridge loans from Petropavlovsk. As of 31 December 2018, gearing, expressed as the percentage of net borrowings to the total of net borrowings and net assets, reduced to 39.0% (31 December 2017: 45.8%) mainly as a result of the increase in net asset value of the Company following the reversal of asset impairment in 2018.

In 2018, the Group received bridge loans from Petropavlovsk of approximately US$57 million to finance the payments of the June and December principal instalments of the ICBC loan. In December 2018, the Group entered into a US$240 million loan facility with Gazprombank. The Gazprombank facility is secured by a charge over the assets of K&S and is guaranteed by Petropavlovsk. The purpose of the Gazprombank facility is to repay K&S's outstanding principal indebtedness under the ICBC loan in full of approximately US$169 million and to use the remaining amounts for the following purposes: (i) to repay the bridge loans advanced by Petropavlovsk of approximately US$57 million in full, (ii) to finance K&S's working capital in the amount of approximately US$8 million and (iii) to repay the guarantee fee of approximately US$6 million owed by the Group to Petropavlovsk in respect of the ICBC Facility. In March 2019, the ICBC loan and the bridge loans from Petropavlovsk were fully repaid by utilising the proceeds from the Gazprombank facility.

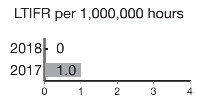
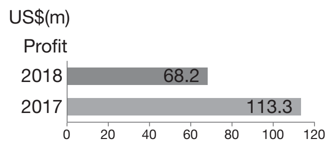
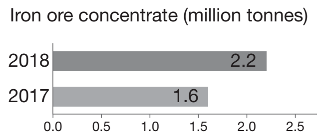
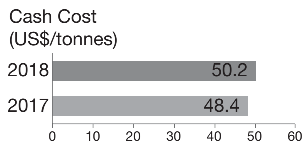
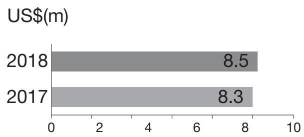
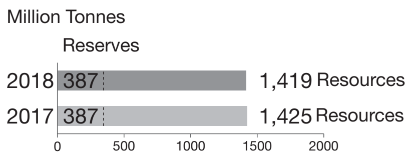
## Risk of Exchange Rate Fluctuation

The Group undertakes certain transactions denominated in foreign currencies, principally Russian Rouble and is therefore exposed to exchange rate risk associated with fluctuations in the relative values of US Dollars. Exchange rate risks are mitigated to the extent considered necessary by the Board of Directors, primarily through holding the relevant currencies. At present, the Group does not undertake any foreign currency transaction hedging.

## Employees and Emolument Policies

As at 31 December 2018, the Group employed approximately 1,515 employees (31 December 2017: 1,440 employees). The total staff costs excluding share-based payments was US$24.0 million for 2018 (31 December 2017: US$21.7 million). The emolument policy of the Group is set up by the Remuneration Committee on the basis of their merit, qualifications and competence with reference to market conditions and trends.

# KEY PERFORMANCE INDICATORS

| KPI | CONTEXT | 2018 DEVELOPMENT | 2018 PERFORMANCE |
|---|---|---|---|
| **Safety** | Our aim is zero harm culture; we adhere to strict safety policies and standards. LTIFR is the frequency of injuries with loss of working ability. | Safety training for operational employees and contractors was conducted by external consultants. All of the Group's operating companies are required to have in place health and safety management systems. The company continues to improve the system when necessary. | **Safety – Outstanding level**<br> |
| **Profitability** | Profitability focuses on mid to long term. Currently, K&S mine is in commercial production and in the process of ramping up to full capacity. Kuranakh has been moved to care and maintenance. | K&S is in commercial production phase and achieved an average of c.70% production capacity in the 2018. Kuranakh was moved to care and maintenance. | **Profitability – Two Consecutive Years**<br> |
| **Production** | K&S is in ramping up progress and Kuranakh has been moved to care and maintenance. | K&S achieved record-breaking monthly production volume of c.84% in December and managed to operate at 105% of its design capacity during a 24-hour production run. These demonstrated K&S's ability to run at load for a prolonged period. Since the K&S started trial production, the plant has cumulatively produced and sold over 4.1 million tonnes of iron ore concentrates. | **Iron Ore Concentrate Production – Increase with Ramp Up Progress**<br> |
| **Efficiencies & Cash Cost** | "Cash Cost" shows the cost of running a mine to produce a given amount of a product. It is a benchmark of operating efficiency. Cash cost disregards general administration expenses. | K&S proved to be a more efficient mine than Kuranakh. Although cash cost has slightly increased in 2018, the increment is generally in line with inflation. | **Efficiency & Cash Cost – Processing Cost Improved**<br> |
| **Administrative Overheads** | Administrative overheads measure costs of supporting units for the business to carry out profit making activities. | In 2018, stringent measures of corporate costs cutting continued across the Group. | **Administrative Overheads – Excluding non-cash items**<br> |
| **Exploration & Development** | Our exploration programmes aim to add value through the discovery of new resources and increase and confirm confidence in mineable reserves. | Efforts and resources were focused on ramping up of K&S. No exploration activity was carried out during 2018. | **Exploration & Development – Reserves remains at similar level**<br> |
| **HSE & Community** | HSE is measured by adhering to legislation and best practices in the communities and environment where we operate. | The integrated environmental management system ("EMS") helps IRC in reducing its impact on the environment. | **Extensive HSE statistics are set out in the HSE Section.** |

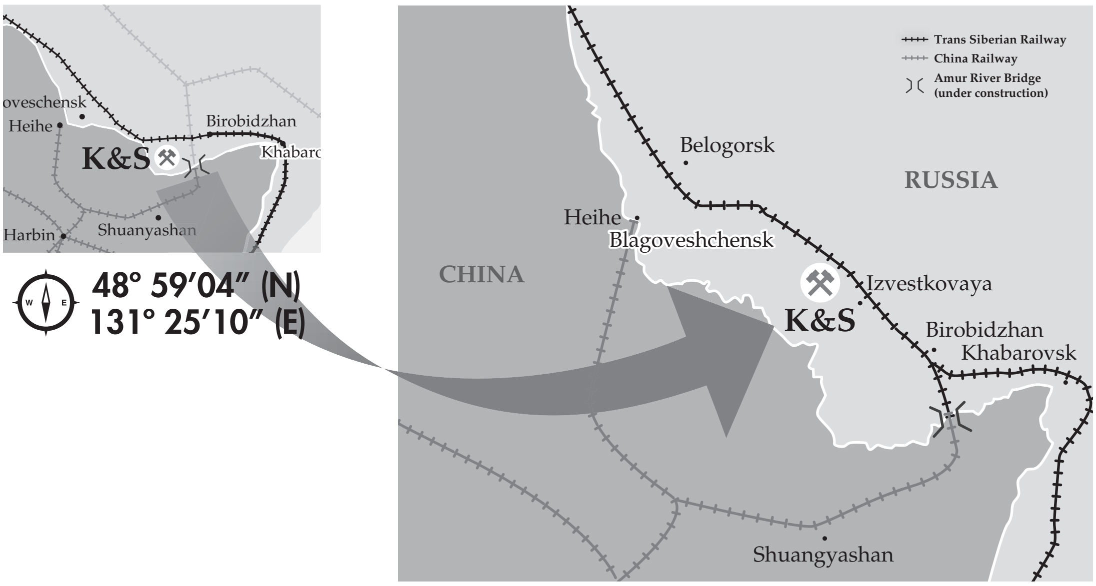
KEY PERFORMANCE INDICATORS (CONTINUED...)

| | 2017 PERFORMANCE | FUTURE OPPORTUNITIES |
| --- | --- | --- |
| Outstanding performance on overall safety. The total quantity of fatality and registered injuries decreased from 1 and 2 respectively in 2017 to 0 in 2018. Group LTIFR also further decreased from 1 in 2017 to 0 in 2018. | Overall safety performances maintains at our satisfactory level. Group LTIFR per 1,000,000 hours decreased to 1. Number of fatality and injury rate were recorded as 1 and 2 respectively. | IRC will continue to maintain high safety standards and adopt zero harm policy across its operations. As production ramp up at K&S, education programmes for employees and contractors will continue to be conducted. |
| Positive mine in production EBITDA before impairments of US$33.0 million was recorded in 2018. IRC achieved net profit in two consecutive years. | IRC reported a positive mine in production EBITDA before impairment of US$27.9 million. After taking into account the reversal of asset impairment, IRC reported a profit of US$113.3 million, a turnaround from 2016's loss making position. | An international Sino-Russian railroad bridge, Amur River Bridge, is expected to be opened in 2019 which will allow reduction of transportation cost of K&S. Although Kuranakh is currently under care and maintenance, the Group may consider the option of re-opening Kuranakh if the metal market upside prevails. |
| Align with the ramp up progress, production volume of K&S continue to increase. K&S produced 2,234,517 tonnes of iron ore concentrate in 2018, 43% higher than that of last year. | In 2017, K&S produced 1,563,066 tonnes of iron ore concentrate, 731% increased compare to 2016, demonstrating the transformation that K&S brings to IRC. | Once K&S ramps up to full capacity, cash inflow will be boosted. Future development of K&S Phase 1.5 or Phase 2 projects will allow an increase of total designed capacity to 4.6 million tonnes or 6.3 million tonnes per annum respectively. |
| The average cash cost per tonne of iron ore concentrate slight increased by 3.7% to US$50.2. Processing cost decreased by 12% in 2018 due to the better efficiency of K&S production plant. | The average cash cost per tonne of iron ore concentrate decreased by 12% to US$48.4 as K&S continues to ramp up and started commercial production. | Unit cash cost is expected to further reduced when K&S has reached full capacity due to economies of scale. The depreciation of Rouble will continue to aid our production cash cost as our costs are mainly denominated in Rouble. The construction of Amur River Bridge could further reduce rail transport costs by up to US$5 per tonne to customers in China. |
| 2018 general administration costs recorded US$10.4 million, representing an increase of 6%. The general administration costs excluded non-cash items of the Group was US$8.5 million which is similar to 2017 level. | In 2017, general administration costs of the Group were further reduced 4.8% to US$9.9 million. Excluding share-based payment and depreciation, which are non-cash in nature, the cost reduced by 9.8% to US$8.3 million. | The Group will continue to carry out more stringent cost saving measures to minimise the administrative overheads costs. |
| Group resources and reserves amounted to 1,419 million tonnes and 387 million tonnes respectively at the end of 2018. The movement in resources and reserves mainly represents mining activities at K&S, movements in stockpile and other minor adjustments. | Group resources amounted to 1,425 million tonnes as at the end of 2017. Reserves decreased to 387 million tonnes, mainly due to a reflection of utilising the reserves for production at K&S. | Exploration and development activities will resume when the market conditions and the Group's cash flow improve. |
| Integrated EMS was applied to manage its operations but also used for development, implementation and review of the Company's environmental policy management. | The integrated EMS was applied to all Company's activities in 2017. This helps reduce the impact of our operations on environment. | The Group will continue to strive to reduce energy consumption and emissions, water usage and waste. |

# PROJECT REVIEW

## K&S

100% owned




### OVERVIEW

The K&S Mine, 100% owned by IRC, is located in the Jewish Autonomous Region (EAO) of the Russian Far East. It is the second full-scale mining and processing operation that the Group has developed. The project consists of two principal deposits – Kimkan and Sutara. The K&S Phase I is to produce 3.2 million tonnes per annum of iron ore concentrate with 65% Fe grade. There is an option for a Phase II expansion to produce a total of 6.3 million tonnes of 65% iron ore concentrate per annum. As an interim development between the two phases, IRC is assessing an option to upgrade the Phase I production facility to increase the production capacity to about 4.6 million tonnes per annum with a capital expenditure requirement of about US$50 million. The Phase I Processing Plant has been constructed by CNEEC and funded through a project finance facility provided by ICBC. During 2018, IRC has successfully entered into a refinancing facility agreement with Russian leading bank, Gazprombank, in order to fully replace the ICBC's finance facility. The principal repayment of the Gazprombank facility is skewed to the latter part of the loan term so that the repayment pattern will better align with the ramping up of K&S.

K&S enjoys tremendous geological advantage. The Trans – Siberian Railway is linked directly to the mine site, allowing easy transport of products to customers. With the usage of the Amur River Bridge which is expected to be completed and operational in 2019, the transportation cost and distance can be further reduced.

K&S is located in the Obluchenskoye District of the Jewish Autonomous Region (EAO) in the Russian Far East. The operation is 4 kilometres from the town of Izvestkovaya, through which the Trans-Siberian Railway passes. It is also 130 kilometres from the federal highway connecting to the regional capital of Birobidzhan, and 300 kilometres from Khabarovsk, the principal city of the Russian Far East.

### K&S RAMP-UP PROGRESS ENTERING INTO FINAL PHASE

During 2018, K&S's ramp up programme continued and achieved several milestones, including operating at 105% of its designed capacity during a 24-hour production run. This demonstrated the plant's capability to run at load on a prolonged period. In addition, K&S's mining contractor brought new equipment to the site to support the increasing production volume. Although some additional ramping up issues have been revealed, K&S team is planning to resolve them quickly. Despite more ramping-up tests needing to be conducted, K&S's Processing Plant operated in a stable and continuous manner at a steady production capacity of 70% in 2018 and had achieved record-breaking monthly production volume of c.84% in December of 2018. With the well-experienced site team, IRC remains confident in resolving the outstanding issues to allow K&S to continue the increase in production volume. The current focus is to achieve designed capacity and catch up on previous deficits.

## PRODUCTION

During the 2018, 6,967,700 tonnes of ore was fed for primary processing and 4,801,703 tonnes of pre-concentrate was produced. Finally, 2,234,517 tonnes of iron ore concentrate was produced and 2,223,945 tonnes was sold.

## SALES & MARKETING

As K&S is producing more iron ore concentrate, it has also successfully diversified its customer base and was selling to three different buyers in 2018. These customers come from different countries and regions, including Russia and China. Diversification of customers allows the Group to commend a stronger bargaining power for better prices and sales terms. The Group's sales and marketing team is in discussion with other potential buyers to further broaden the customer base.

## UNIT CASH COST

In view of the fact that K&S has not yet reached full production capacity, the unit cash cost per tonne in 2018 amounting to US$50.2 per tonne has not yet reached its optimal level. Taking into account the potential Rouble depreciation and the opening of the Amur River Bridge in 2019 to reduce transportation costs, the Group considers that K&S' cash cost is expected to be reduced to about US$43 per tonne when full scale operation at K&S is achieved.

## SAFETY

The LTIFR is a measure of the number of lost-time injuries per one million hours worked. During 2018, the K&S's safety control performed satisfactorily with no injuries occurred at operation and the LTIFR was zero (31 December 2017 LTIFR: 1.0).

## MINING

The Kimkan operation covers approximately 50 km$^2$ and comprises two key ore zones – Central and West. Open pit mining is carried out at the Central area, with ore being stockpiled for processing.

During the second quarter of 2018, the mining contractor brought new equipments to the site and started to increase the mining scale. The additional mining fleets allow the mining contractor to increase its mining volume to approximately 1.4 million cubic metres of rock mass per month, providing the necessary feedstock to K&S to operate at higher than its designed capacity of 3.2 million tonnes per annum. The mining contractors continue to replenish the stockpiles and prepare for the uplift in production volume in 2019. During 2018, a total of 7,985,600 tonnes of ore were mined.

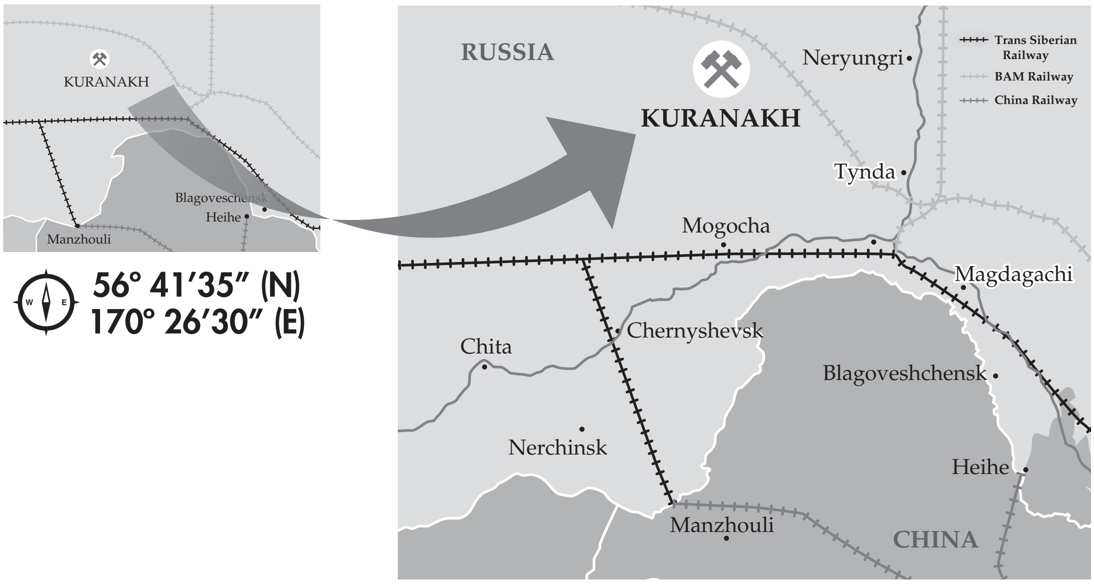
## AMUR RIVER BRIDGE/TONGJIANG BRIDGE

Amur River Bridge is a national project between China and Russia to build a railway bridge across the Amur River border between the two countries. The Amur River Bridge was hailed as one of the major projects between the two countries. These infrastructure projects are expected to bring closer economic cooperation which IRC may benefit from.

Recently, the Governor of Jewish Autonomous Oblast told a state news agency that the Bridge is scheduled to complete in July and be operational later in 2019 after the customs checkpoints and other ancillary infrastructure are in place. The current distance from K&S to the Chinese border (Suifenhe) is approximately 1,000 kilometres. K&S mine is situated approximately 240 kilometres from the bridge site and IRC's nearest customer within China is approximately 180 kilometres away from the bridge. When the Bridge is operational, K&S will be able to reduce the transportation cost to the Chinese boarder by up to US$5 per tonne, allowing K&S to strengthen its position as a low-cost iron ore concentrate producer. Moreover, the Bridge will become a part of the new export route and stimulus for the creation of new logistical and industrial clusters, improving the transport accessibility of the region which K&S is expected to benefit indirectly.

# Kuranakh

100% owned




## OVERVIEW

Kuranakh, 100% owned by IRC, is the Group's first mining operation and the first vertically integrated titano-magnetite operation in Russia, designed, built and managed by IRC. The mine was initiated in 2010 and moved to care and maintenance since beginning of 2016 due to challenging operating environment in the commodities market at that time.

The Kuranakh Mine is located in the Amur Region of the Russian Far East, near the town of Olekma, a principal stop on the BAM Railway. The operation covers an area of approximately 85km$^2$ and comprises the Kuranakh and Saikta open-pit mines, an on-site Crushing and Screening Plant and the nearby Olekma Processing Plant. The operation produces an iron ore concentrate with a 62.5% Fe quality content and an ilmenite concentrate with a 48% $TiO_2$ quality content. The concentrates can be directly loaded onto railcar wagons for transportation via the BAM and Trans-Siberian Railways to customers in Russia and China and internationally via the Russian Pacific sea ports.

## SAFETY

As the mine was moved into care and maintenance, there was no injuries and the LTIFR was zero during the year of 2018 (31 December 2017 LTIFR: 0).

## CONTINUED TO BE IN CARE & MAINTENANCE

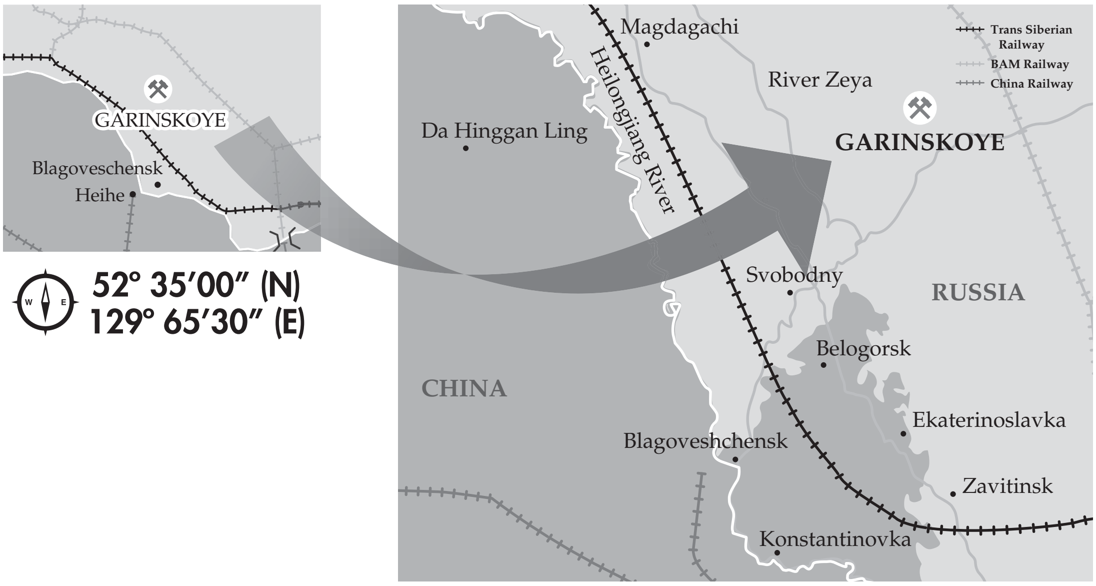
Kuranakh has been moved to care and maintenance since the beginning of 2016 due to the softening of the iron ore market prices. Consequently, during 2018, there was no production or sales from Kuranakh operation. The only minimal costs recorded were for equipment maintenance and security. Although the subsidiary company that holds Kuranakh has applied for liquidation to save the ongoing costs, IRC retains the option of re-opening Kuranakh or pursuing other development alternatives if the metal markets upside prevails.

Following the recent positive price movements and the stablilisation in the bulk commodity market, IRC is conducting a strategic review to consider the restarting of Kuranakh. Kuranakh used to provide feedstock for the operation of the steel slag reprocessing plant, a PRC joint venture 46% owned by IRC and currently under care and maintenance. If Kuranakh recommences operation, it could provide the necessary feedstock for the joint venture, allowing the reprocessing plant to recommence production of vanadium products in light of current market demand for vanadium pentoxide for steel production and a battery metal.

PROJECT REVIEW (CONTINUED...)

# Garinskoye

99.6% owned




## OVERVIEW

Garinskoye, 99.6% owned by IRC, is an advanced exploration. The project offers the potential for a low cost DSO-style operation, that can be transitioned into a large-scale long-life open pit mining operation.

The project is located in the Amur Region of the Russian Far East, midway between the BAM and Trans-Siberian Railways. With exploration licences for ground covering an area of over 3,500 km$^2$, the project is the largest in terms of area in the IRC portfolio.

## CURRENT DEVELOPMENT

There are two possibilities to develop Garinskoye. The first option is to develop a large-scale 4.6 million tonne per annum open-pit operation with a life-of-mine of 20 plus years, which requires the construction of a rail connection. The second option is an intermediate DSO-style operation that does not require a rail connection and can be started up in advance of a larger conventional operation. The DSO-style plan comprises a pit with a 20.2 million tonnes reserve, 48% Fe grade, and a stripping ratio of 1.7:1 m$^3$ per tonne. The DSO-style plan would then be able to produce 1.9 million tonnes per annum, with 55% grade iron ore fines and a life of operation of 8 years. There is an option to further increase the project value at very little additional capital expenditure with the addition of a further wet magnetic separation stage to produce a high-grade "super-concentrate" with a 68% iron ore content.

In 2013, IRC completed an internal Bankable Feasibility Study. In 2014, a third-party verification and a fatal flaws analysis for the DSO-style operation was carried out.

Currently, the Garinskoye project is placed on hold until the market conditions for iron ore improve.

# Other Projects

## EXPLORATION PROJECTS & OTHERS

IRC's other exploration projects comprise an extensive portfolio that is diversified by geography, commodity and development stages. It aims to add value through the discovery of new resources and increasing and confirming mineable reserves. Currently, IRC is keeping these valuable licenses for later development until market conditions improve. Apart from exploration projects, IRC is also involved in complementary business of a steel slag reprocessing plant (SRP) and a mining consultancy services agency (Giproruda). Regarding the SRP project, as its feedstock is dependent on the concentrate from Kuranakh, and as the latter was moved to care and maintenance during 2016, and as there were no alternative sources of materials as the feedstock, it was moved to care and maintenance. Below is a summary of the Group's current exploration projects portfolio:

| Project | Products/Service | Location |
|---|---|---|
| Kostenginskoye* (100% owned) | Iron ore concentrate | Jewish Autonomous Region, Russian Far East |
| Bolshoi Seym (100% owned) | Ilmenite | Amur Region, Russian Far East |
| SRP (46% owned) | Vanadium Pentoxide | Heilongjiang, China |
| Giproruda (70% owned) | Technical mining research and consultancy services | St. Peterburg, Russia |

* Resource base for K&S

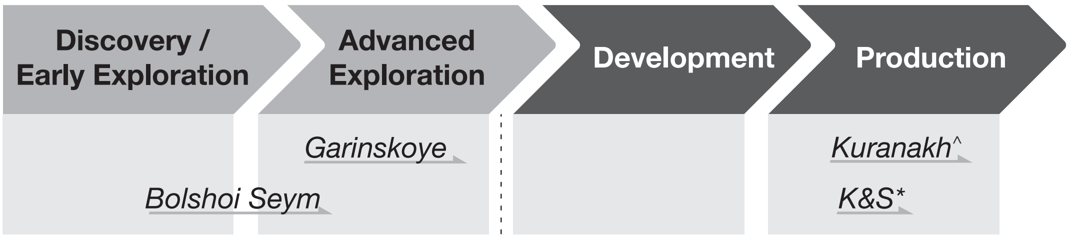
# MINERAL RESOURCES AND ORE RESERVES STATEMENT

## EXPLORATION OVERVIEW

IRC geologists explore prospective areas, confirming historical exploration results and existing mineable reserves. This mitigates risks during mining operations and reduces mining and processing costs. The data obtained during exploration helps develop strategies, business concepts and optimise mine models.

IRC has established one of the largest geological portfolios of quality ferrous ores in the Far East of Russia, comprising a range of deposits by geography, geology, commodity, extraction and processing style and importantly at different stages of development, thereby providing unrivalled optionality.

The portfolio is divided into producing and exploration projects.




* Including Kostenginskoye
^ Under care and maintenance

## OPERATIONS

Over 2018, although no material exploration activity was carried out, changes to resources and reserves were mainly due to the commercial production activity and normal minor oxidation at K&S. Reflecting these changes, the Group resources and reserves as at 31 December 2018 are as follows.

| 31 December 2018 | | |
|---|---|---|
| IRON ORE | RESOURCES | **1,418.6 million tonnes** |
| | | **29.1% Fe** |
| | RESERVES | **386.9 million tonnes** |
| | | **32.6% Fe** |

**What is a Mineral Resource?**
A 'Mineral Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

**What is an Ore Reserve?**
Ore Reserves are those portions of Mineral Resources that, after the application of all Modifying Factors, result in an estimated tonnage and grade which, in the opinion of the Competent Person making the estimates, can be the basis of a technically and economically viable project, after taking account of material relevant Modifying Factors. Ore Reserves are reported as inclusive of marginally economic material and diluting material delivered for treatment or dispatched from the mine without treatment.

MINERAL RESOURCES AND ORE RESERVES STATEMENT (CONTINUED...)

The table below details the Group's Mineral Resources and Ore Reserves as at 31 December 2018 (after the application of geological losses). All figures are prepared in accordance with the Guidelines of JORC Code (2012) for consistent basis of presentation. On the following pages, a further breakdown by project is available detailing cut-off grades and changes during 2018. Rounding-off of numbers may result in minor computational discrepancies. Where this occurs, such discrepancies are deemed to be insignificant.

## Resources Summary

| Project | Category | Tonnage Mt | Fe Grade % | Fe Mt | $TiO_2$ Grade % | $TiO_2$ Mt |
|---|---|---|---|---|---|---|
| **RESOURCES** | | | | | | |
| Kuranakh | Measured | — | — | — | — | — |
| | Indicated | 8.8 | 31.1% | 2.7 | 9.8% | 0.9 |
| | Inferred | 8.4 | 30.7% | 2.6 | 9.6% | 0.8 |
| | Total | 17.2 | 30.9% | 5.3 | 9.7% | 1.7 |
| K&S* | Measured | 20.6 | 31.6% | 6.5 | — | — |
| | Indicated | 367.5 | 32.7% | 120.1 | — | — |
| | Inferred | 461.0 | 30.3% | 139.7 | — | — |
| | Total | 849.1 | 31.4% | 266.3 | — | — |
| Garinskoye | Measured | — | — | — | — | — |
| | Indicated | 210.9 | 35.5% | 74.9 | — | — |
| | Inferred | 48.6 | 30.8% | 15.0 | — | — |
| | Total | 259.5 | 34.7% | 89.9 | — | — |
| Bolshoi Seym | Measured | — | — | — | — | — |
| | Indicated | 270.8 | 17.8% | 48.1 | 7.7% | 20.8 |
| | Inferred | 22.0 | 16.9% | 3.7 | 7.7% | 1.7 |
| | Total | 292.8 | 17.7% | 51.8 | 7.7% | 22.5 |
| Group | **Total Measured** | **20.6** | **31.6%** | **6.5** | **—** | **—** |
| | **Total Indicated** | **858.0** | **28.7%** | **245.9** | **7.7%** | **21.7** |
| | **Total Inferred** | **540.0** | **29.8%** | **161.0** | **8.2%** | **2.5** |
| | **Total** | **1,418.6** | **29.1%** | **413.4** | **7.8%** | **24.2** |

* Including Kostenginskoye

MINERAL RESOURCES AND ORE RESERVES STATEMENT (CONTINUED...)

## Reserves Summary

| Project | Category | Tonnage Mt | Fe Grade % | Fe Mt |
|---|---|---|---|---|
| **RESERVES** | | | | |
| Kuranakh | Proven | — | — | — |
| | Probable | — | — | — |
| | Total | — | — | — |
| K&S | Proven | 21.2 | 30.0% | 6.4 |
| | Probable | 339.5 | 31.7% | 107.5 |
| | Total | 360.7 | 31.6% | 113.9 |
| Garinskoye | Proven | — | — | — |
| | Probable | 26.2 | 47.0% | 12.3 |
| | Total | 26.2 | 47.0% | 12.3 |
| **Group** | **Total Proven** | **21.2** | **30.0%** | **6.4** |
| | **Total Probable** | **365.7** | **32.8%** | **119.8** |
| | **Total** | **386.9** | **32.6%** | **126.2** |

## Kuranakh

Kuranakh is a medium-size titanomagnetite and ilmenite deposit, located in the Tynda District of the Amur Region in the Russian Far East. Between 2004 and 2006 geological exploration and confirmation works were conducted at the deposit. Currently two ore zones have been allocated for mining: Kuranakh and Saikta

Within the Kuranakh and Saikta deposits three ore types have been distinguished:

1. An ilmenite-titanomagnetite type in massive ores (massive lenticular and streaky congregations)
2. Titanomagnetite-ilmenite
3. Titanomagnetite-hemoilmenite types (as disseminations, impregnations and pockets) in the gabbroids.

The main useful components include titanium and iron; other components include vanadium, chromium, nickel, and cobalt. Of these, only vanadium is considered a useful by-product and is taken into account in the assessment of resources and reserves.

Due to unsatisfactory iron ore priced environment in previous years, the Group has put Kuranakh under care and maintenance since 2016. As a result, no mining activities were carried out during 2018. Also based on unsatisfactory iron ore price environment in previous years, the reserves of Kuranakh were proved uneconomical and continue assumed to be nil.

MINERAL RESOURCES AND ORE RESERVES STATEMENT (CONTINUED...)

The full Kuranakh resources are stated below:

***Kuranakh and Saikta Mineral Resources & Ore Reserves***

| | Tonnage Mt | Fe Grade % | Fe Mt | $TiO_2$ Grade % | $TiO_2$ Mt |
|---|---|---|---|---|---|
| **RESOURCES** | | | | | |
| Kuranakh Pit | | | | | |
| Measured | — | — | — | — | — |
| Indicated | 4.4 | 32.0% | 1.4 | 10.2% | 0.5 |
| Inferred | 3.3 | 31.0% | 1.0 | 9.9% | 0.3 |
| Total | 7.7 | 31.6% | 2.4 | 10.1% | 0.8 |
| Saikta Pit | | | | | |
| Measured | — | — | — | — | — |
| Indicated | 4.4 | 29.5% | 1.3 | 9.3% | 0.4 |
| Inferred | 5.1 | 31.4% | 1.6 | 9.3% | 0.5 |
| Total | 9.5 | 30.5% | 2.9 | 9.3% | 0.9 |
| **Total Measured** | **—** | **—** | **—** | **—** | **—** |
| **Total Indicated** | **8.8** | **31.1%** | **2.7** | **9.8%** | **0.9** |
| **Total Inferred** | **8.4** | **30.7%** | **2.6** | **9.6%** | **0.8** |
| **Total** | **17.2** | **30.9%** | **5.3** | **9.7%** | **1.7** |

*Assumed average cut-off grades: Kuranakh Fe cut-off grade: 17%.*

## Kimkan and Sutara

Kimkan and Sutara (K&S) is a large magnetite project located in the Obluchenskoye District of the EAO in the Russian Far East. The project consists of two principal deposits – Kimkan and Sutara. In the calculation of K&S resources and reserves, Kostenginskoye Deposit, which is located at 18 km south of the Sutara Deposit and is believed to have a similar structure to the Sutara Deposit, have been included in K&S. The Kostenginskoye Deposit represents a potential ore feed extension for K&S to increase mine life. The resources of the Kostenginskoye Deposit were included in the inferred category under the total resources of K&S.

To date all of the necessary exploration activities as well as confirmation drilling have been completed on all areas except for the Kostenginskoye Deposit.

The current mining plan of K&S was based on a feasibility study completed in 2015. The geological model assumes steeply deepening tabular ore body. Mining activities start with Kimkan deposit first, then Sutara deposit at later stage. During 2018, the resources and reserves figures slightly decreased due to mining activities  at K&S, movements in stockpiles and other minor adjustments.

MINERAL RESOURCES AND ORE RESERVES STATEMENT (CONTINUED...)

A breakdown of mineral resource and ore reserves for K&S is detailed in the table below:

## K&S Mineral Resources & Ore Reserves

| | Tonnage Mt | Fe grade % | Fe Mt |
|---|---|---|---|
| **Resources** | | | |
| Kimkan & Sutara | | | |
| Measured | 20.6 | 31.4% | 6.5 |
| Indicated | 367.5 | 32.7% | 120.1 |
| Inferred | 281.6 | 32.0% | 90.2 |
| Total | 669.7 | 32.4% | 216.8 |
| Kostenginskoye | | | |
| Measured | — | — | — |
| Indicated | — | — | — |
| Inferred | 179.4 | 27.6% | 49.5 |
| Total | 179.4 | 27.6% | 49.5 |
| **Total Measured** | **20.6** | **31.6%** | **6.5** |
| **Total Indicated** | **367.5** | **32.7%** | **120.1** |
| **Total Inferred** | **461.0** | **30.3%** | **139.7** |
| **Total** | **849.1** | **31.4%** | **266.3** |
| **Reserves** | | | |
| Kimkan & Sutara | | | |
| **Total Proven** | **21.2** | **30.0%** | **6.4** |
| **Total Probable** | **339.5** | **31.7%** | **107.5** |
| **Total** | **360.7** | **31.6%** | **113.9** |

*Assumed average cut-off grades: Kimkan & Sutara Pit Fe magnetite cut-off grade: 15%; Kostenginskoye Pit Fe magnetite cut-off grade: 10%. For the Sutara Pit, in the previous year, Fe total was used as the basis of determination while in 2018, Fe magnetite is used. The change in the basis is to allow the adoption of a more consistent approach in determining the Resources and Reserves figures for the pits in Kimkan, Sutara and Kostenginskoye.*

## Garinskoye

The Garinskoye Deposit is one of the few large iron ore deposits in the Russian Far East which was explored and studied extensively during the Soviet era. It is situated in the Mazanovsky Administrative District, in the Amur Region and lies approximately 300 km from the regional capital of Blagoveschensk.

The deposit was first discovered in 1949 through an aeromagnetic anomaly. Between 1950 and 1958, detailed exploration was carried out including pits, trenches, shafts and underground development, together with drill holes. The dominant form of mineralisation is magnetite that sees a shift to martite within the oxidation zone. The magnetite ores can be divided into three iron grade types:

1. High grade at above >50% Fe – sub-divided into low and high phosphorus
2. Average grade from 20% to 50%
3. Low grade from 15% to 20% Fe

The current geological exploration works have been conducted at Garinskoye since 2007, and the works have focussed on the opportunity for a DSO-style operation since 2011. In 2018, no new exploration was carried out. The resources and reserves of Garinskoye were prepared under a new set of estimates based on updated geological studies and a feasibility study in 2015. As there is no exploration carried out and based on last year's iron ore price assumptions, the resources and reserves of Garinskoye remains the same in 2018 compared to 2017.

The following table details the Resources and Reserves for Garinskoye:

***Garinskoye Mineral Resources & Ore Reserves***

| | Tonnage Mt | Fe grade % | Fe Mt |
|---|---|---|---|
| **Resources** | | | |
| Measured | — | — | — |
| Indicated | 210.9 | 35.5% | 74.9 |
| Inferred | 48.6 | 30.8% | 15.0 |
| **Total** | **259.5** | **34.7%** | **89.9** |
| **Reserves** | | | |
| Proven | — | — | — |
| Probable | 26.2 | 47.0% | 12.3 |
| **Total** | **26.2** | **47.0%** | **12.3** |

*Assumed average cut-off grades: Garinskoye Fe cut-off grade: 16.5% and Fe magnetite cut-off grade: 9%.*

## Bolshoi Seym

Bolshoi Seym is located in Tynda district of the Amur region, 40 km from the Kuranakh Deposit. At Bolshoi Seym, the license covers an area of 26 $km^2$. Potentially economic mineralisation at Bolshoi Seym comprises massive ilmenite and magnetite. Massive mineralisation comprises 90% to 99% (by volume) of ilmenomagnetite, magnetite and ilmenite. The Bolshoi Seym mineralisation was initially discovered during the apatite-ilmenite ore exploration programme conducted in 1979–1982 by Kalarskaya GRP, a subsidiary of the state company Dalgeologiya.

Systematic exploration of the Bolshoi Seym Deposit was conducted between 2007 and 2009 by Vostokgeologia. A total of 170 diamond drill holes have been drilled in all zones totaling 39,277 metres of which 158 were exploration holes, 3 were grade control holes, 5 were technological holes, and 4 were hydro-geological holes. In addition to the drilling, 17 trenches have been excavated over a linear distance of 7,893 metres.

A mineral resource estimate of the Bolshoi Seym Deposit was prepared by Micon in compliance with the CIM (Canadian Institute of Mining, Metallurgy and Petroleum) valuation standards. The estimate utilised geological and assay data from diamond drilling and trenching completed by Vostokgeologia in 2007–2009. In 2015, the resources have been assessed using a 5% $TiO_2$ cut-off grade and prepared under the JORC Code (2012).

In 2012, IRC increased its ownership of the Bolshoi Seym Deposit from 49% to 100%.

MINERAL RESOURCES AND ORE RESERVES STATEMENT (CONTINUED...)

The following table details the resources applying a 8% $TiO_2$ cut-off grade.

***Bolshoi Seym Ore Resources***

| | Tonnage Mt | Fe Grade % | Fe Mt | $TiO_2$ Grade % | $TiO_2$ Mt |
|---|---|---|---|---|---|
| **Resources** | | | | | |
| Measured | — | — | — | — | — |
| Indicated | 270.8 | 17.8% | 48.1 | 7.7% | 20.8 |
| Inferred | 22.0 | 16.9% | 3.7 | 7.7% | 1.7 |
| **Total** | **292.8** | **17.7%** | **51.8** | **7.7%** | **22.5** |

# HEALTH SAFETY ENVIRONMENT COMMUNITY

## INTRODUCTION

IRC takes its Health and Safety, Environmental and Community ("HSEC") responsibilities seriously. They are a core consideration at every stage of our business, not just the day-to-day mining and processing operations, but also through all our functions from exploration to logistics and administration. This also includes the communities where we operate and through our involvement in charitable works, the wider communities of the Amur and Jewish Autonomous regions of the Russian Far East.

In recognition of these, IRC is the first and only pure-play iron ore company in the Russian Far East, as well as the first mining company in the Jewish Autonomous and Amur regions to be certified for compliance with international standard ISO 14001:2004. Since 2012, policies and strategies originate with the Health, Safety and Environment Committee of the Board of Directors. Implementation is overseen by the Executive Committee and designated specialist HSEC teams in Moscow, Birobidzhan and at each operating site.

Finally, together with its largest shareholder, Petropavlovsk plc, IRC is the largest financial contributor to the local economy in the Amur Region. This is repeated in the neighbouring Jewish Autonomous Region with the construction of the K&S Mine, the largest single new investment in the region's history.

## SUSTAINABLE DEVELOPMENT POLICY

IRC operations are large-scale projects that cover large areas. Thousands of people are involved on many sites, working across many disciplines. The Company's operations provide a stimulus for the economic development of the Russian Far East and as such have become an integral part of the local economic fabric.

The core constituents of IRC's sustainable development policy are

1. The provision of safe and healthy working conditions

2. The rational use of natural resources

3. The preservation of a favourable environment for future generations

## HEALTH, SAFETY AND ENVIRONMENT COMMITTEE

The Health, Safety and Environment Committee consists of three Independent Non-Executive Directors – Daniel Rochfort Bradshaw (Chairman), Jonathan Eric Martin Smith and Chuang-fei Li, and is responsible for evaluating the effectiveness of the Group's policies and systems for identifying and managing health, safety and environmental risks within the Group's operations and for ensuring compliance with health, safety and environmental regulatory requirements. The Committee also assesses the performance of the Group with regards to the impact of health, safety, environmental and community relations, decisions and actions. For details of the committee, please refer to page 59 of this report.

## EMPLOYEES, HEALTH & SAFETY

IRC operates a variety of industrial projects, including mines and processing plants in some harsh climatic conditions in the Russian Far East. Mining operations are open pit and heavily mechanised, a positive contrast to labour intensive underground mining.

At the end of 2018, IRC employed approximately 1,850 employees and contractors, about 10.2% increase compared to the end of 2017. The increase in the number of involved employees is related to the commissioning and ramping up of K&S (Phase One).

IRC encourages diversified culture in workplace. The Company recruits people for work not only from the Far East, but also from other regions of Russia and the Commonwealth of Independent States ("CIS") and participates in the state program of the resettlement of compatriots. The resettlement program of compatriots involves preferential conditions for obtaining citizenship and compensation for the costs of moving and rearrangement to a new place. In 2018, under the resettlement of compatriots program, the Company employed 3 employees.

## Workforce Composition

| | **2018** | 2017 |
|---|---|---|
| Part-Time | **15** | 18 |
| Casual | **61** | 54 |
| Contractors | **287** | 109 |
| Female – Ratio % | **28** | 41.7 |

Note: the table presents average number for the year

## Employment Mission & Vision

Attracting, employing and retaining high-quality and competent staff is fundamental to IRC's business performance. Our success at this reflects our progress towards our vision of becoming a leading Sino-Russian champion and the preferred employer in the Russian Far East. We work hard to gain, train and retain our employees and contractor partners, and to provide a safe, proud and disciplined working conditions and environments to all stakeholders involved.

In addition, the core to achieving our human resource goals is safety. The Company's objective is to encourage, facilitate and operate a zero-harm environment through:

— Conforming to Russian regulations and international standards of health and safety where practical and reasonable

— Extensive health, safety and basic first aid training on an ongoing basis

— Regular internal audits and external reviews of health and safety policies and equipment

## Training & Development

Our company is rapidly growing, which makes opportunities for professional and career growth possible. We understand that investments in skilled labour contribute to long-term success, and a key area of focus is on the continuous improvement of qualifications of our employees. Since 2008, the Group provided external and internal training and development of its employees.

Similar to years before, training and development of the Group's personnel in 2018 was conducted by external consultants in the following areas:

– Upgrade professional qualifications, for example in the following areas of "Safe methods and methods of performing of works at height. Training of the organisation employees on work safety at height", "Safety of construction: the organisation of construction, reconstruction and major repairs", "Minerals processing", "Training and retraining of slingsmans", "Working with pressure vessels" and others dimensions according to Program for 2018;

– Learning new vocational skills;

– Operational and crisis safety training, including labour safety, industrial and fire safety.

In 2018, in accordance with the training and qualification upgrade program approved by the Company, 820 employees were successfully trained.

Of these, 299 company employees were trained in the training centre at K&S. The K&S training centre has a license for professional training, issued by the Education Committee of Jewish Autonomous region No 953 dated 3 April 2014. Only employees of the plant are trained in the training centre. Upon completion of training, the employee is issued a certificate or a certificate equivalent. There are two classrooms and visual training material in the centre. Industrial training takes place in the workplace under the guidance of a teaching staff of production training. The teaching staff includes engineers and technicians at K&S, who have obtained a diploma of professional retraining for conducting professional activities in the field of education.

For environmental knowledge and environmental conservation training, internal trainings were carried out by the Company in 2018, they included:

— on-going environmental management and awareness training;

— testing employees' knowledge and implementation of the Group's environmental, operational and technical aspects, which were carried out either on-site or in a distant educational mode, such as "Eco Testing" corporate program.

Also, the Company regularly acquaints the newly recruited employees with the environmental policy of IRC. In 2018, 477 people were introduced to environmental policy.

## Labour Standards

The employment and labour standards of the Company are guided by the Constitution of the Russian Federation, Labour Code of the Russian Federation and other laws and regulations of the Russian Federation since the majority of our workforce is based in Russia.

As a general rule, employment contracts are concluded for an indefinite term with all employees. Russian labour legislation imposes expressed restrictions on the execution of employment contracts with a definite term of duration. However, an employment contract may be entered into for a fixed term of up to five years in certain cases where labour relations may not be established for an indefinite term due to the nature of the duties or the conditions of performance of such duties as well as in other cases expressly identified by Federal Law.

An employer may terminate an employment contract only on the basis of specific grounds set out in the Labour Code. An employee made redundant or dismissed from an enterprise due to its liquidation is entitled to receive compensation including a severance payment and, depending on the circumstances, salary payments for a certain period of time.

The Labour Code also provides for additional protections for, or favourable treatment of, certain categories of employees, such as pregnant women, workers under the age of 18, workers engaged in dangerous labour conditions or those working in hostile climatic conditions. Under the Labour Code, it is forbidden to employ, engage or use any forced or juvenile labour and the Federal authorities regularly perform field inspections to ensure compliance with the law.

The Labour Code also sets the regular working week at 40 hours. Any time worked beyond 40 hours per week, as well as work on public holidays and weekends, must be compensated with double payment of labour or set off as an extra day-off.

With the purpose of compliance with the relevant laws and regulations and improving labour productivity and quality, the Company has the following in place:

— the employee professional code of conduct;

— internal code of labour conduct;

— regulations on personal data of the employees;

— remuneration and bonus scheme for the employees;

— regulations of enforcing and vacation of disciplinary penalties;

— regulations of rotational work;

— dormitory rules; and

— provisions on charity.

In 2018, the Group was materially in compliance with all relevant employment laws and regulations, including the Labour Code.

## Health and Safety

The Group is responsible for maintaining a safe working environment that meets applicable industrial safety requirements. Health and safety is managed at an operational level, with support provided by the Group to ensure consistent compliance with Russian regulations. All projects are required to have health and safety management systems in place and reflect good international practice. The principal law regulating industrial safety is the Russian Health and Safety Law which applies, in particular, to industrial facilities and sites where certain activities are conducted, including sites where the processing of minerals is conducted and certain hazardous substances are used. The Health and Safety Law also contains a comprehensive list of dangerous substances and their permitted concentration, and extends to facilities and sites where these substances are used. Regulations adopted pursuant to the Health and Safety Law further address safety rules for mining and production operations conducted by the Group.

Any construction, reconstruction, liquidation or other activities in relation to regulated industrial sites is subject to a state industrial safety review. Any deviation from project documentation in the process of construction, reconstruction or liquidation of regulated industrial sites is prohibited unless reviewed by a licensed expert and approved by the Federal Service for Environmental, Technological and Nuclear Supervision or other relevant regulatory authority. Legal entities that operate such regulated industrial facilities and sites have a wide range of obligations under Russian law, in particular under the Health and Safety Law and the Labour Code.

The Group recognizes that, in addition to its statutory obligations to protect the health of all its workers, its staff have a right to operate in a safe working environment. All staff receive health and safety training as part of the initial induction process. The Group arranges annual conferences to bring key staff together, allowing them to share experiences and discuss good practice. In addition, all staff received annual health and safety “refresher” training courses to update them on the latest health and safety techniques and procedures being implemented by the Group. Health and safety monitoring and internal inspections of working environments are undertaken to ensure compliance with Russian regulatory requirements as well as with international best practice.

HEALTH SAFETY ENVIRONMENT COMMUNITY (CONTINUED...)

All of the Group's operating companies are required to have in place health and safety management systems, as reflected in detailed health and safety manuals, to meet Russian regulatory requirements and the Group's policies. The Group has extensive training programmes and specialist health and safety personnel. The Group investigates every accident in accordance with established procedures and prepares accident reports. The Group also pays special attention to safety induction for new employees and organises bi-monthly health and safety training for all employees. Personnel are provided with appropriate safety equipment.

The Federal authorities planned visit each of the Group's operations with the periodicity from once a year, to once in three years to inspect explosives storage, industrial facilities, and to check on labour and environmental aspects as well as health and safety procedures and documentation.

### Safety Statistics 2012–2018 (Russian Standard Scale)

| | 2012 | | 2013 | | 2014 | | 2015 | | 2016 | | **2017** | | **2018** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Injuries | LTIFR | Injuries | LTIFR | Injuries | LTIFR | Injuries | LTIFR | Injuries | LTIFR | **Injuries** | **LTIFR** | **Injuries** | **LTIFR** |
| Kuranakh | 6 | 2.55 | 9 | 3.90 | 7 | 3.44 | 3 | 1.90 | 2 | 4.80 | 0 | 0.00 | **0** | **0.00** |
| K&S | 0 | 0.00 | 1 | 1.00 | 1 | 0.81 | 0 | 0.00 | 1 | 0.68 | 2 | 1.05 | **0** | **0.00** |
| Other projects | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | **0** | **0.00** |
| Group | 6 | 1.77 | 10 | 3.00 | 8 | 2.42 | 3 | 1.18 | 3 | 1.57 | 2 | 0.99 | **0** | **0.00** |

The total quantity of the registered injuries with loss of working ability decreased from 2 in 2017 to 0 in 2018. The LTIFR, which is the frequency of injuries with loss of working ability, decreased from 0.99 in 2017 to 0.00 in 2018. In view of the aim of reaching an injury rate of zero, and to provide safe conditions of labour, the Company continues to put more efforts in this area.

In parallel with achieving the zero industrial injuries, there were no fatalities during the year within the IRC group of companies. In order to maintain positive dynamics, the company continues to take measures to prevent fatalities and improve safety performance at all our production facilities.

## ENVIRONMENTAL MANAGEMENT SYSTEM & ENVIRONMENTAL POLICY

Minimising the impact of our operations on the environment is one of the major constituents of IRC's sustainable development policy. The Company's management team treats activity in this field as a matter of major importance and essential business priority.

Since 2011, the IRC group of companies has implemented an integral environmental management system ("EMS") which is certified by the French certification body AFNOR Certification for compliance with the requirements of the international standard ISO 14001.

Currently, EMS in the IRC group of companies continue to comply with all requirements of the ISO 14001 although formal certification is not conducted due to cost reasons.

In order to further confirm the functioning of an effective environmental management system, an annual self-assessment of the system is conducted in the group of companies, as stipulated by the new requirements of the international standard ISO 14001.

HEALTH SAFETY ENVIRONMENT COMMUNITY (CONTINUED...)

The integrated EMS is part of the general management system used by the Company to manage its operations, including exploration, mining, processing and industrial and civil construction. It is also used for development, implementation and review of the Company's environmental policy management.

During the course of its operations, the atmosphere, underground and surface waters, soil and vegetative cover, geological terrain, animal life and, in water ecosystems and around the Group's projects are impacted. Major steps have been taken to minimize the Group's impact on the environment at all stages, including by adhering to and complying with the following environmental policies:

1. Compliance with the environmental laws of the Russian Federation and international agreements.

2. Minimising the impact on the environment and biodiversity where the Company operates through measures that improve and perfect the environmental management system.

3. Minimising the impact of operations on the indigenous populations where the Company operates, in addition to providing support to indigenous communities to preserve their lifestyle and contribute to sustainable development.

4. Use of scientific research and developments to remove or reduce the impact of operations on the environment and reduce the consumption of materials and energy.

5. Preparation and contingency plans in the event of a health and safety, environmental or natural disaster or emergency.

6. Promoting ecological awareness to employees and stakeholders where the company operates.

7. Encouraging vendors and contractors to adhere to the Company's environmental and safety policies.

8. Disclosing the Company's ecological strategy, research and data to the public, in addition to conducting public consultations and hearings.

9. Board and senior management commitment to adhere to the safety and environmental policies, and environmental management system in all decisions.

10. Involving all employees in the environmental management system through training and incentive programmes.

The main aims of the Group's environmental policy are achieved through the implementation of the following activities:

1. Adherence to local environmental law requirements and international standards of best practice where practical and reasonable

2. Environmental Monitoring of the followings:

   — Air pollutants and emissions (including greenhouse gases)

   — Land use and reclamation

   — Waste management (including hazardous substances)

   — Water management

   — Energy consumption and conservation

3. Biodiversity conservation

4. Community Engagement through:

   — Stakeholders engagement

   — Public hearings and discussions

   — Environmental education

It is worth mentioning that in accordance with the requirements of the international standard ISO 14001 all employees undergo training to understanding the environmental protection activities at their work places. The EMS further extends to be applied to all contract organizations carrying out works on the Company territories. Thus, the proper functioning of an environmental management system reduces the impact of our operations on the environment, thereby encouraging a healthy and ecological culture for our employees.

## REQUIREMENTS OF ENVIRONMENTAL LEGISLATION

IRC complies with and indeed often exceeds the standards of Russian legislation and international best practices in its environmental policies. The main Russian Federal Environmental Legislation and Standards which apply to the Group's activities include:

— No. 7, 2002 "Environmental protection"

— No. 2395-1, 1992 "Subsoil Law"

— No. 136, 2001 "Land Code"

— No. 33, 1995 "Specially Protected Natural Territories"

— No. 52, 1995 "Wild Animals"

— No. 116, 1997 "Industrial Safety of Hazardous Production Facilities"

— No. 89, 1998 "Production and Consumption of Waste"

— No. 52, 1999 "Sanitary-Epidemiological Welfare of the Population"

— No. 96, 1999 "Protection of Atmospheric Air"

— No. 190, 2004 "Urban Development Code"

— No. 166, 2004 "Fisheries and Conservation of Aquatic Biological Resources"

— No. 74, 2006 "Water Code"

— No. 416, 2011 "Water supply and water disposal"

— No. 174, 1995 "Ecological expertise"

HEALTH SAFETY ENVIRONMENT COMMUNITY (CONTINUED...)

- No. 99, 2011 “On licensing certain types of activities“
- No. 442, 2003 “On the transboundary movement of waste“
- No. 200, 2006 “Forest Code of the Russian Federation“
- No. 1458, 2014 “On the procedure for determining technology as the best available technology, as well as development, updating and publishing information technology guides using the best available technology“
- No. 219, 2014 “Introducing of changes into the Federal law “Environment protection” and specific legal acts of the Russian Federation”
- Sanitary — hygienic standard 2.1.5.1315-03 “Maximum Permissible Concentration of Chemical Substances in the Ambient Waters of Household, Portable, Cultural and General Water Use Facilities”
- Sanitary — hygienic standard 2.1.6.1338-03 “Maximum Permissible Concentration of Pollution in Populated Areas”
- Sanitary — hygienic standard 2.2.5.1313-03 “Maximum Permissible Concentrations of Hazardous Substances in the Work Air”
- Sanitary — hygienic standard 2.1.6.2309-07 “Safe Reference Levels of Impact of Pollutants in the Community Air”
- GOST R 56062-2014 “Industrial ecological control. General provisions”
- GOST R 56061-2014 “Industrial ecological control. Requirements for the program of the industrial ecological control”
- GOST R 56059-2014 “Industrial ecological monitoring. General provisions”
- GOST R 56060-2014 “Industrial ecological monitoring. Monitoring of the condition and pollution of the environment on the territories of wastes placement”
- GOST R 56063-2014 “Industrial ecological monitoring. Requirements for the programs of industrial ecological monitoring”
- GOST R 56828.24-2017 “Best available technology. Energy saving. Guidelines for the application of best available energy efficiency technologies.”
- GOST R 56828.27-2017 “Best available technology. Resource saving. Methodology of waste treatment in order to obtain secondary material resources.”
- GOST R 55100-2012 “Resource saving. The best available waste management technologies in the mining industry. Aspects of effective use.”
- GOST R 54298-2010 “Environmental management system. Certification of Environmental management system for compliance GOST P 14001-2007.”
- HS 2.1.7.2041-06 “Maximum permissible concentrations of chemicals in the soil”

- HS 2.1.5.2307-07 "Maximum permissible concentrations of chemicals in the water bodies of drinking and household water use."
- GD Protection of nature. Hydrosphere. Guidelines/Surface water accounting.

## ENVIRONMENTAL MONITORING, CONTROL AND MEASURING

IRC has a comprehensive environmental monitoring system, including monitoring the state of environment, assessment and forecasting of changes of environmental conditions under the influence of natural and anthropogenic factors. Monitoring covers the following areas:

- Atmospheric air
- Natural waters (subsurface and underground)
- Bottom sediments and top soil in stream flow
- Flora and fauna
- Aquatic ecosystems
- Radiation

IRC monitors air emissions and solid waste sources, along with process control parameters and fuel and power resources on a regular basis with the data used to better manage operations.

In order to ensure implementation of environmental protection measures, rational use and restoration of natural resources and to ensure compliance with the requirements of the applicable environmental legislation, IRC carries out industrial environmental control at its production sites.

Objectives of industrial environmental control are:

- checking the conformity of the technological process with design decisions;
- control of hazardous waste management; and
- control of atmospheric air, land and water bodies.

All environmental monitoring and industrial control is performed in accordance with Russian legislation and international guidelines. Only accredited laboratories and advanced research organisations with the appropriate licenses are contracted to undertake this work.

As part of the monitoring programmes, more than 69,400 analyses of various environmental components have been conducted since 2004 and more than 29,400 wastewater and industrial emissions test have been carried out since 2009.

In accordance with the industrial ecological control and environmental monitoring it has been established that IRC's activities have not exceeded any maximum limits or failed to meet any standards.

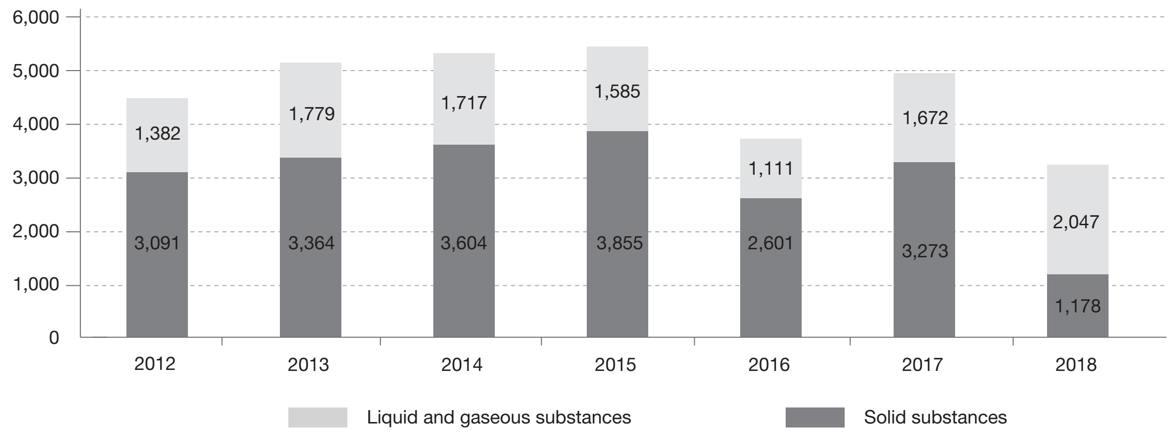
## AIR POLLUTANTS AND EMISSIONS

The key air pollutants produced by the Group's operations are as below, which are mainly produced by mining and processing operations.

| Liquid and gaseous substances: | Solid substances: |
|---|---|
| carbon monoxide | inorganic dust (>70% SiO2) |
| nitrogen dioxide | inorganic dust (70-20% SiO2) |
| sulfur dioxide | inorganic dust (<20% SiO2) |
| nitrogen oxides | PM10 |
| saturates | PM2.5 |
| benzopyrene | dialuminium trioxide and etc. |
| ethanol and etc. | |

In 2018, emissions into the air from stationary sources amounted to 3,225 tonnes, which is 34.8% less than in 2017 (4,945 tonnes). The decrease in the share of emissions is associated with obtaining permits for emissions of pollutants into the air by stationary sources located on the territory of the mining and processing complex, valid until August 2, 2022. This permit meets the actual emission quota. While the previously issued permit met the design specifications.

### Emissions of Air Pollutants from Stationary Sources, 2012–2018 (tonnes)




Stationary emission sources within the licensed areas are installed and operated under the approved draft code provisions for maximum permissible emissions. In addition, the operating companies obtained atmospheric pollutant emission permits.

HEALTH SAFETY ENVIRONMENT COMMUNITY (CONTINUED...)

In accordance with the new requirements of the nature conservation laws of the Russian Federation, the Group ecologists sent an application to register the existing sites of the Group which generate negative impact on the environment, with assignment of categories for them and levels of ecological inspection. In order to improve quality of air and take actions to prevent air pollution and minimize air emissions, the following actions were taken:

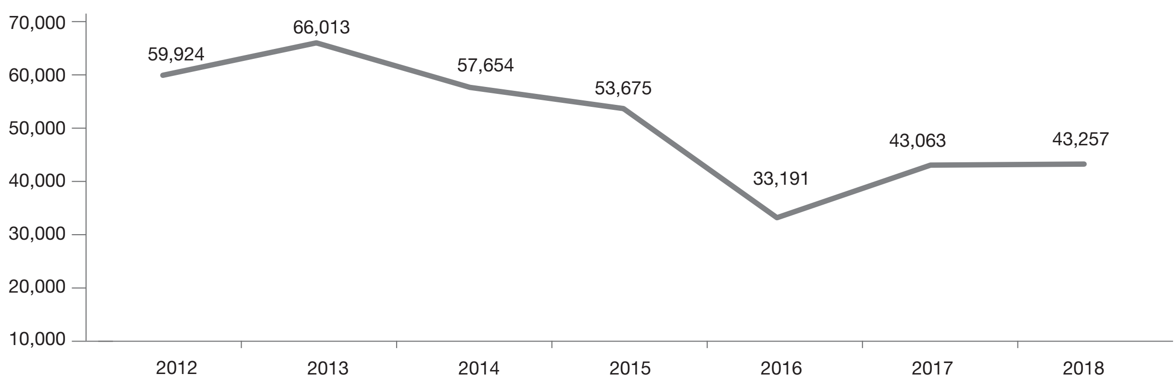
- Developing dust suppression schedules by watering. Monitoring of this schedule is ongoing to improve efficiencies.
- Controlling the performance of dust and gas treatment facilities at processing plants through the use of approved dust and treatment facilities.
- Extending the industrial emissions purification programme that reached 96.8% in 2018. Aim to deepen the implementation of the programme through future renovation and replacement opportunities at the plants.
- Continuously monitoring motor vehicle exhaust smoke capacities during technical inspections.
- Carefully monitoring energy consumption targets and fuel utilisation limits to ensure they fall within approved limits.
- Reducing diesel powered electric generation.

Industrial environmental monitoring results show that emissions have been within all regulatory limits.

## GREENHOUSE GAS EMISSIONS

The greenhouse gas emissions produced by the Group is mainly as a result of fuel use at the project sites. The indicator of impact of the greenhouse gas emissions on the environment is reflected in $CO_2$-equivalent, which includes greenhouse gases such as carbon dioxide, methane, nitrous oxide and cooling agents. In 2018, there was an increase of greenhouse gas emissions, the emissions amounted to 43,257 tonnes of $CO_2$-equivalent, which is 194 tonnes (0.45%) higher than in 2017.

### Greenhouse Gas Emissions, 2012–2018 (tonnes)




The increase in greenhouse gas emissions was mainly related to the increase of energy consumption (in particular due to an increase in the consumption of brown coal in the boiler house of 65 MW) in K&S as a result of commencement of the operation at the mine.

HEALTH SAFETY ENVIRONMENT COMMUNITY (CONTINUED...)

## Summary of Air Pollutant & Emission Statistics 2012–2018

| | Unit | 2012 | 2013 | 2014 | 2015 | 2016 | **2017** | **2018** |
|---|---|---|---|---|---|---|---|---|
| ***Air Pollutants & Emissions*** | | | | | | | | |
| **Mass of emitted hazardous pollutants:** | | | | | | | | |
| Solid substances | t | 3,091 | 3,364 | 3,604 | 3,855 | 2,601 | 3,273 | **1,178** |
| Liquid and gaseous | t | 1,382 | 1,779 | 1,717 | 1,585 | 1,111 | 1,672 | **2,047** |
| Total | t | 4,473 | 5,143 | 5,321 | 5,440 | 3,712 | 4,945 | **3,225** |
| **Greenhouse gas emissions ($CO_2$-equivalent)** | | | | | | | | |
| Gasoline combustion | t | 439 | 467 | 566 | 555 | 569 | 539 | **580** |
| Diesel fuel combustion | t | 42,050 | 47,967 | 36,260 | 30,949 | 7,609 | 2,939 | **3,634** |
| Kerosene combustion | t | 0.14 | 0.89 | 1.02 | 0 | 0.13 | 0.59 | **0.60** |
| Coal combustion | t | 17,435 | 17,578 | 20,827 | 22,171 | 25,013 | 39,585 | **39,043** |
| Total | t | 59,924 | 66,013 | 57,654 | 53,675 | 33,191 | 43,063 | **43,257** |
| **Rate of permissible discharge:** | | | | | | | | |
| Permissible release of solids | % | 92 | 86 | 90 | 78 | 69 | 97 | **100** |
| Permissible release of liquid and gases | % | 101 | 81 | 86 | 85 | 69 | 87 | **100** |
| **Pollutants removed by gas treatment:** | | | | | | | | |
| Removed solid | t | 2,510 | 2,418 | 2,884 | 3,147 | 3,246 | 24,617 | **46,565** |
| Removed liquid and gaseous substances | t | 526 | 602 | 783 | 843 | 843 | 853 | **0.11** |
| Total removed | t | 3,036 | 3,020 | 3,667 | 3,990 | 4,089 | 25,470 | **46,565** |

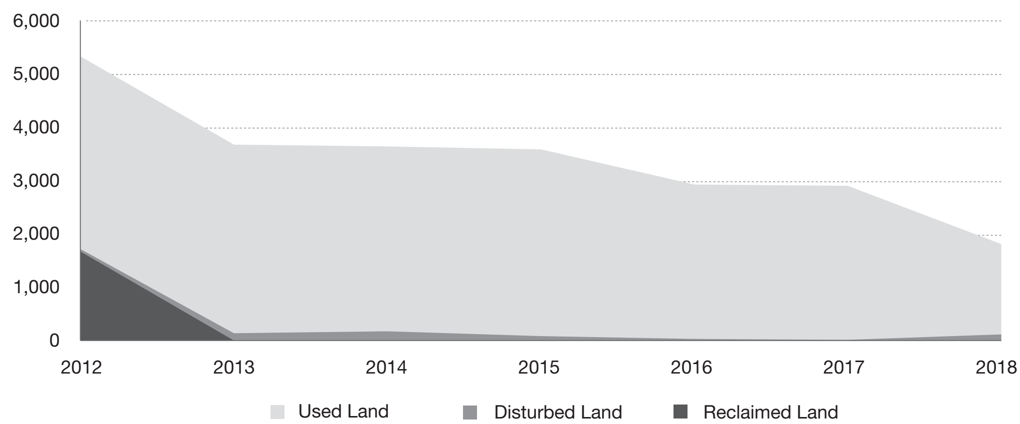
## LAND USE AND RECLAMATION

At the end of 2018, the total amount of land used by IRC was 1,695 hectares, which is 1,195 (41.3%) hectares less than in 2017. The reduction in land use is associated with the termination of the land lease agreements at the Kuranakh and Garinskoye fields.

The total area of new disturbed land in 2018 was accounted for by the K&S and amounted to 113 hectares, which is 99.65 hectares more than in 2017 (13.35 hectares). This is due to the increase of the area occupied by facilities of the Kimkan deposit.

Any land that is disturbed will be restored to its previous state through various engineering and biological solutions. Land reclamation work is carried out in accordance to environmental regulations and respects the natural surroundings of sites. The major component of reclamation work is the removal and preservation of fertile topsoil that will ultimately be restored to the site. Correlation of lands used, disturbed and reclaimed by IRC is presented at the chart below.

### Land Use and Reclamation, 2012–2018 (hectares)



HEALTH SAFETY ENVIRONMENT COMMUNITY (CONTINUED...)

### Land Use & Reclamation Statistics 2012–2018

| | Unit | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|
| **Land lease:** | | | | | | | | |
| Total | ha | 3,616 | 3,540 | 3,470 | 3,505 | 2,898 | 2,890 | **1,695** |
| New surfaces disturbed in the reporting period | ha | 46 | 137 | 173 | 82.7 | 30.2 | 13.35 | **113** |
| **Recultivated lands during the year** | | | | | | | | |
| Reclaimed land | ha | 1,670 | 0 | 0 | 0 | 0 | 0 | **1.96** |
| Used topsoil | $m^3$ | 0 | 0 | 0 | 0 | 0 | 5,280 | **13,876** |
| **Preservation of topsoil** | | | | | | | | |
| Removed to stockpiles | $m^3$ | 143,900 | 42,000 | 0 | 0 | 0 | 0 | **0.0** |
| Total topsoil stored at 31 December | $m^3$ | 1,393,700 | 1,434,853 | 1,306,853 | 1,306,856 | 1,306,856 | 1,301,576 | **1,287,700** |
| **Forest plantation** | | | | | | | | |
| Total | ha | 0 | 0 | 0 | 0 | 0 | 0 | **0.0** |

## WASTE MANAGEMENT

IRC uses five internationally recognised categories to classify hazardous waste:

**Class V (practically non-hazardous wastes)** — more than 99.98% from all types of waste. These are all industrial wastes: overburden rocks, tailings of wet and dry magnetic separation, and also construction wastes, waste metal and the other types of waste.

**Class IV (low-hazard waste)** — approximately 0.001% from all types of waste. This class of waste includes both solid and liquid domestic waste.

**Class III (moderately hazardous wastes)** — approximately $5.2 \times 10^{-5}$% from all types of waste. This includes oil contaminated wastes.

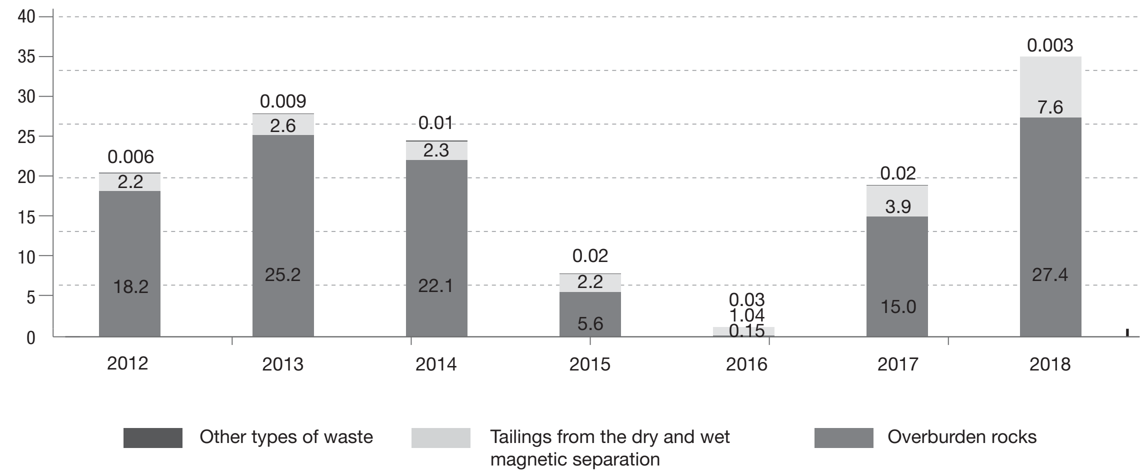
**Class II (highly hazardous wastes)** — approximately $1.1 \times 10^{-7}$% from all types of waste. This includes used sulphuric battery acid and waste batteries.

**Class I (extremely hazardous waste)** — less than $1.1 \times 10^{-6}$% from all types of wastes. e.g. mercury-filled lamps.

Staff training in hazardous waste management and labelling is ongoing. Efforts are made to ensure the universal labelling of hazardous materials is according to international standards.

The total volume of industrial and household waste generated in 2018 increased 84.67% and reached 34,962.03 k tonnes, including: overburden of 27,370.17 k tonnes, approximately 78.29% of total waste and; wet and dry tailings of 7,588.73 k tonnes, approximately 21.71% of total waste; other types of waste of 3.134 k tonnes, approximately 0.01% of total waste.

### Waste Volume, 2012-2018 (million tonnes)



Increase of wastes volume of overburden, tailings of dry and wet magnetic separation and bottom ash wastes is related to the commencement of operation at K&S due to the increasing mining works for its continuous production.

## Treatment & Recycling of Waste

IRC constantly work on optimisation in treatment with wastes and also on active reuse of wastes during its production, so that volumes of displaced wastes can be minimized, and subsequently reduce its impact on the environment.

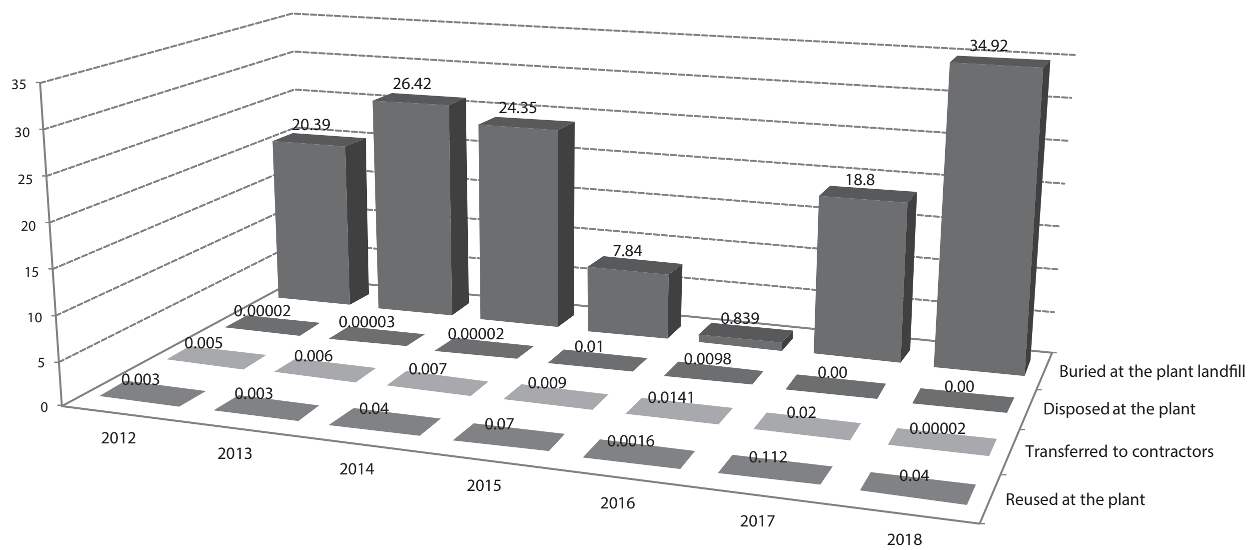
In 2018, 40,453 tonnes of wastes from the Group was recycled, 99.8% of which were tailings of dry and bottom ash wastes. The wastes were used in repair and construction of roads, when filling of construction sites and in preparation of de-icing products. The rest of the waste is used in the following ways: sawdust as absorbent of oil products.

Quantity of wastes transmitted to the licensed organisations for further treatment is 26.77 tonnes. The main part of which is liquid wastes from K&S.

IRC has developed and approved waste generation standards and waste disposal limits. Across its Russian offices, IRC is implementing the "Green Office" initiative, targeting a reduction in the use of paper, committing to the use of totally chlorine free (TCF) paper, certified by the Forest Stewardship Council – FSC, as well as the collection, and recycling of waste paper.

Efforts on consolidation and recording of worn electric batteries and office appliances have also been implemented, with final disposal handled by designated third-party professionals. In 2018, 37kg of used batteries were received from the Company's employees, which prevented contamination by heavy metals of ~37,000 m$^2$ of soil and 7,400,000 litres of water.

## Waste Management, 2012-2018 (million tonnes)



### Waste Management Statistics 2012–2018

| | Unit | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | **2018** |
|---|---|---|---|---|---|---|---|---|
| **Formed Waste:** | | | | | | | | |
| Total | t | 20,412,291 | 27,837,914 | 24,373,977 | 7,861,251 | 1,220,067 | 18,932,593 | **34,962,031.0** |
| Wastes without notice of overburdens and tailings: | t | 7,564 | 8,353 | 10,213 | 22,350 | 25,493 | 24,823 | **3,134.0** |
| Class I | t | 0.37 | 0.46 | 0.59 | 0.83 | 0.23 | 0.36 | **0.39** |
| Class II | t | 5.77 | 6.92 | 5.74 | 4.18 | 0.26 | 1.59 | **0.04** |
| Class III | t | 146.88 | 184.11 | 163.42 | 110.39 | 27.39 | 68.52 | **18.48** |
| Class IV | t | 269.09 | 236.30 | 180.10 | 10,052.07 | 9,970.11 | 2,582.74 | **190.566** |
| Class V | t | 7,142 | 7,925 | 9,863 | 12,182 | 15,495 | 22,170 | **2,925.017** |
| Waste from operations: | t | 20,397,162 | 27,821,209 | 24,353,551 | 7,838,902 | 1,194,574 | 18,907,770 | **34,958,897** |
| Overburden rocks | t | 18,222,979 | 25,188,323 | 22,101,404 | 5,602,431 | 150,161 | 14,989,050 | **27,370,170** |
| Wet tailings | t | 675,681 | 722,893 | 631,970 | 659,411 | 489,588 | 2,007,880 | **5,306,664** |
| Tailings | t | 1,498,502 | 1,909,993 | 1,620,177 | 1,577,060 | 554,825 | 1,910,840 | **2,282,063** |
| **Waste Management:** | | | | | | | | |
| Neutralized at the plant | t | 17 | 28 | 22 | 9,816 | 9,809 | 0 | **0** |
| Reused at the plant | t | 2,546 | 2,484 | 2,696 | 74,624 | 1,589 | 111,721 | **40,453** |
| Buried at plant landfill | t | 20,397,162 | 26,418,779 | 24,353,551 | 7,838,902 | 838,885 | 18,797,987 | **34,921,456** |
| Transferred to contractors | t | 4,771 | 5,763 | 7,411 | 9,291 | 14,074 | 20,032 | **26.77** |

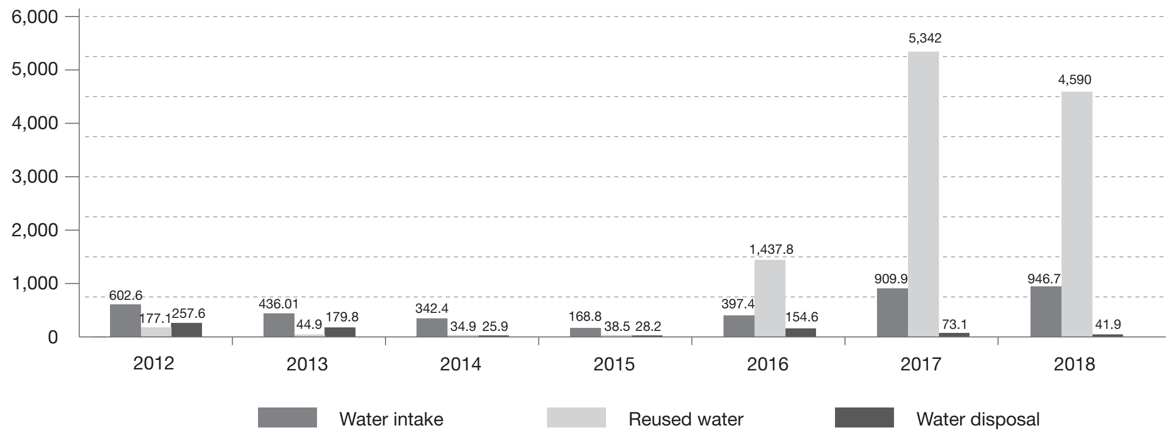
## WATER MANAGEMENT

In 2018, the water intake of the Group increased by 36,832 m³ to 946,734 m³, of which 943,873 m³ was sourced from natural water objects and 2,861 m³ from the existing municipal systems. Increase of water volume taken from the underground water objects is related to the commencement of production of K&S Processing Plant, operation of all technological production parameters (cooling of the compressor station, bearings, hydraulic sealing of pumps and preparation of coagulum for thickening of the tailings, firefighting, hydro-cleaning and other technological needs). Where it is impossible to use water from the circulating water supply system, the fresh water replenishes the technological processes.

The volume of reused water amounted to 4,589,575 m³ (for feeding of the water recycling system, for dust suppression in the quarries and in the access roads).

Water disposal in 2018 was 41,916 m³ in total, of these 13,856 m³ was allocated to the abstraction of treated water into natural water bodies, and 28,060 m³ to the existing sewerage utilities of the settlement.

### Water Consumption and Disposal, 2012-2018 (Km³)



Data of the Group's water consumption for operation is based on water usage agreement contracts concluded with designated supplier with grants for usage of water body on the surface and/or licenses for subsoil usage (for underground sources).

Data of the Group's consumption of water from available public service systems is conducted based on purchase and sales contracts. These arrangements allow the Group to purchase sufficient amounts of water for its operations, and the Group has not been faced with any water shortages.

### Water Management Statistics 2012–2018

| | Unit | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | **2018** |
|---|---|---|---|---|---|---|---|---|
| Water intake: | $m^3$ | 602,632 | 436,010 | 342,349 | 168,825 | 397,440 | 909,902 | **946,734** |
| Water disposal: | $m^3$ | 257,604 | 179,752 | 25,875 | 28,207 | 154,563 | 73,128 | **41,916** |
| Volume of reused water: | $m^3$ | 177,064 | 44,878 | 34,900 | 38,466 | 1,437,849 | 5,342,000 | **4,589,575** |

## ENERGY CONSUMPTION AND CONSERVATION

IRC pays special attention to energy conservation and efficiency. We use multiple software programs, combined with GPS sensors that monitor vehicle location, idling time and fuel levels to monitor consumption patterns. This data is in turn linked to other software for process analysis, accounting and inventory management to lower costs and improve working capital. In terms of software, "Autograph" and "Production Reporting" software are introduced at the mines allowing better control and rational use of fuel resources. Across the Group the following measures continue to be applied:

— Repair of boilers at boiler houses of 65 MW and 10 MW, which led to improvement in the efficiency of coal combustion as a result of a decrease in air inflow.

— Insulation of buildings and premises of the processing plant.

— Installation of light sensors on the light lines of water treatment plant.

— Installation of 157 LED lights for the processing plant.

In 2018, consumption of fuel and power resources was 33,577 tonnes, an increase of 42.9% compared to 2017.

The growth in energy consumption at the K&S plant is mainly associated with the start of production activity at the plant (mainly due to the burning of brown coal at the "Central" boiler house and the drying unit of the Processing Plant).

### Energy Consumption & Conservation Statistics 2012–2018

| | Unit | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | **2018** |
|---|---|---|---|---|---|---|---|---|
| **Consumption:** | | | | | | | | |
| Coil | t | 9,663 | 9,742 | 11,543 | 12,288 | 13,863 | 22,379 | **32,300** |
| Diesel fuel | l | 15,938,978 | 18,181,913 | 13,744,216 | 11,731,094 | 2,883,972 | 1,121,079 | **1,376,983** |
| Gasoline | l | 187,237 | 199,043 | 241,282 | 236,567 | 242,854 | 233,004 | **250,818** |
| Kerosene | l | 55 | 350 | 400 | 0 | 50 | 231 | **234** |

## BIODIVERSITY CONSERVATION

Many activities were conducted to preserve and maintain biodiversity in and around the Group's operations with the aim of protecting critical habitats and improving the natural habitat of animals and plants. Examples in 2018 include:

- The company is making site improvement, plants trees and shrubs
- Fire prevention measures
- Planting lotus in water-storage basins formed in the upper reaches of drainage structures of the tailings dam
- To avoid fish-kill in the water-storage basins, water is aerated (i.e. water is saturated with oxygen) in the winter period.

## OPERATING PRACTICES

### Supply chain management

For the purchasing, production and services for IRC, the Company holds open tenders for proposals which include a questionnaire for tender participants on environmental protection and system of ecological management.

In order to ensure that suppliers and contractors fulfil the requirements in terms of labour protection, industrial and environmental safety, when preparing the contracts, the texts of the contracts specify the obligations of the executor in respect of labour protection, industrial safety and environmental protection.

### Product responsibility

Management of the production quality is one of the main factors in increase of the competitiveness of the plant production on the consumer market. The quality control in IRC is implemented at all production stages: starting from supply of the raw material and ending with loading of the ready production.

In order to provide and maintain high quality of the produced goods, the division of laboratory samples preparation within the Technical Control Department was set up at the production site. The employees, according to the technological sampling map of the processing plant and technological control of the minerals separation process, regularly monitor over the quality indicators of mining feedstock and final product produced, and also perform a check of process compliance with the applicable technical requirements.

The quality control of the production is performed to define compliance with the technical conditions, regulations, GOSTs and other normative documents related to quality of the products. For the purposes of providing reliable information to the customers on the safety of industrial use, storage, transportation and utilization of chemical products, the Company issued and registered a Material Safety Data Sheet (MSDS) for the produced iron ore concentrate. It represents a compulsory integral part of technical documentation for the products and includes a warning marking about dangerous properties of industrial products on the human body.

In case of deviations from the specified quality parameters of the product, process engineers of the plant are to undertake prompt measures to detect all bottlenecks in the production process and eliminate them, which minimise the risk of deviations in future. The products sold to customers are loaded onto the wagons for delivery, and packing materials are not used.

### Anti-corruption

As required under Russian law (No. 273, 2008 “Anti-corruption”) and also voluntarily assumed obligations, IRC actively works on prevention and fighting corruption and implementation of anti-corruption policies which concern not only activity inside of the company, but also relations with the state and business partners. The Group’s anti-corruption policies are guided by the transparency principle. Although the Group engaged in charity and sponsorship events, it is carried out in compliance with the relevant laws and regulations. Internal documents of the Group are required to comply with anti-corruption policies, and the Group is constantly improving its system of open purchase procedures to reduce the opportunities for corruption to take place. The relationships with contractors are checked to prevent any undisclosed related party and other potential conflict of interest issues, and internal investigations are carried out when there are incidents of damage to product or equipment. The Group also has a “Corporate trust mail” which is an important component of the Group’s implementation of its anti-corruption policies as it allows staff to provide information and feedback, which the Group can then use to investigate and resolve any situations where corruption or conflicts of interests have arisen or may potentially arise.

## STAKEHOLDERS ENGAGEMENT

In the Russian Far East, IRC increased its stakeholders’ activities in 2018, predominantly under its “Corporate Framework Programme of Stakeholders’ Engagement and Corporate Standards” and its “Communication in the Environmental Management System” programmes. The Company’s activities aim to form constructive dialogues with all stakeholders in the region; working closely with stakeholders, engaging them at all stages of the project with timely disclosure and information, and providing mechanisms to air grievances and make claims, as well as reporting and monitoring all procedures.

## PUBLIC HEARINGS AND DISCUSSIONS

Public hearings and other forms of public consultations give all concerned parties (community, technical specialists and representatives of state regulatory bodies) the possibility to express their requests as part of direct dialogue with the Group, raise concerns related to project implementation, and receive answers on points of interest. IRC managers and dedicated specialists regularly participate in such public hearings and discussions. The public participation meetings are conducted on a regular basis.

In December 2018, public hearings were held on the construction of facilities of the Kimkan and Sutara mining and processing plant. Much attention was paid to environmental impact assessment in the course of planned economic activities and measures to minimize the negative impact. As a result of the public hearings, the approval was received from representatives of a public authority and citizens present.

## ENVIRONMENTAL EDUCATION

One of the major principles of the Group's Environmental Policy is to educate IRC staff and the population living in and around the Company's operations about the environment. IRC regularly organises environmental education to both the Group's and contractor workers, as well as to the local population.

Since 2009, IRC has provided financial support to STS, the Jewish Autonomous Region (EAO) educational TV programme channel. These programmes highlight the ecological and environmental uniqueness of the region and the challenges it faces.

Between 2009 and 2018, the Company prepared 34 editions of the Ecological Bulletin of the JAR, four of which were in 2018. The programs were devoted:

1. Organization of special containers in the institutions of the JAR to collect used batteries;

2. Habitat of the Red Book migratory birds at the tailings dam;

3. Transition and organization of separate collection of household waste at the enterprise;

4. Summing up the results of public hearings.

## SUPPORT INDIGENOUS PEOPLE

The Group strives to preserve the life-style of the indigenous population in the regions and also to contribute to their sustainable development. IRC has established good connections with the indigenous Evenk people where the Group operates.

Since 2003, IRC has contributed over RUB3.0 million to Evenk communities, all within the framework of Ust-Nyukzha Indigenous Minorities Development Plan. Since 2015, funding of indigenous peoples has been temporarily suspended due to financial difficulties at Kuranakh. However, if and when the financial situation of Kuranakh improves and stabilises, the support may be resumed.

HEALTH SAFETY ENVIRONMENT COMMUNITY (CONTINUED...)

## Summary of IRC Environmental Statistics 2012–2018

| Performance Indices | Unit | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|
| ***1. Air Pollutants & Emissions*** | | | | | | | | |
| **Mass of emitted hazardous pollutants:** | | | | | | | | |
| Total | t | 4,473 | 5,143 | 5,321 | 5,440 | 3,712 | 4,945 | **3,225** |
| Solid substances | t | 3,091 | 3,364 | 3,604 | 3,855 | 2,601 | 3,273 | **1,178** |
| Liquid and gaseous substances | t | 1,382 | 1,779 | 1,717 | 1,585 | 1,111 | 1,672 | **2,047** |
| **Greenhouse gases emissions ($CO_2$):** | | | | | | | | |
| Gasoline combustion | t | 439 | 467 | 566 | 555 | 569 | 539 | **580** |
| Diesel fuel combustion | t | 42,050 | 47,967 | 36,260 | 30,949 | 7,609 | 2,939 | **3,634** |
| Kerosene combustion | t | 0.14 | 0.89 | 1.02 | 0 | 0.13 | 0.59 | **0.60** |
| Coal combustion | t | 17,435 | 17,578 | 20,827 | 22,171 | 25,013 | 39,585 | **39,043** |
| Total | t | 59,924 | 66,013 | 57,654 | 53,675 | 33,191 | 43,063 | **43,257** |
| **Rate of permissible discharge:** | | | | | | | | |
| Permissible release of solids | % | 92 | 86 | 90 | 78 | 69 | 97 | **100** |
| Permissible release of liquid and gases | % | 101 | 81 | 86 | 85 | 69 | 87 | **100** |
| **Pollutants removed by gas treatment:** | | | | | | | | |
| Total removed | t | 3,036 | 3,020 | 3,667 | 3,990 | 4,089 | 25,470 | **46,565** |
| Removed solid substance | t | 2,510 | 2,418 | 2,884 | 3,147 | 3,246 | 24,617 | **46,565** |
| Removed liquid and gaseous substances | t | 526 | 602 | 783 | 843 | 843 | 853 | **0.11** |
| ***2. Land Use & Reclamation*** | | | | | | | | |
| **Land lease:** | | | | | | | | |
| Total | ha | 3,616 | 3,540 | 3,470 | 3,505 | 2,898 | 2,890 | **1,695** |
| New surfaces disturbed in the reporting period | ha | 46 | 137 | 173 | 82.7 | 30.2 | 13.35 | **113** |
| **Recultivated lands during the year** | | | | | | | | |
| Reclaimed land | ha | 1,670 | 0 | 0 | 0 | 0 | 0 | **1.96** |
| Used topsoil | $m^3$ | 0 | 0 | 0 | 0 | 0 | 5,280 | **0.0** |
| **Preservation of topsoil** | | | | | | | | |
| Removed to stockpiles | $m^3$ | 143,900 | 42,000 | 0 | 0 | 0 | 0 | **0.0** |
| Total topsoil stored at 31 December | $m^3$ | 1,393,700 | 1,434,853 | 1,306,853 | 1,306,856 | 1,306,856 | 1,301,576 | **1,287,700** |
| **Forest plantation** | | | | | | | | |
| Total | ha | 0 | 0 | 0 | 0 | 0 | 0 | **0** |
| ***3. Waste Management*** | | | | | | | | |
| **Formed Waste:** | | | | | | | | |
| Total | t | 20,412,291 | 27,837,914 | 24,373,977 | 7,861,251 | 1,220,067 | 18,932,593 | **34,962,031** |
| Wastes without notice of overburden sand tailings: | t | 7,564 | 8,353 | 10,213 | 22,350 | 25,493 | 24,823 | **3,134** |
| Class I | t | 0.37 | 0.46 | 0.59 | 0.83 | 0.23 | 0.36 | **0.39** |
| Class II | t | 5.77 | 6.92 | 5.74 | 4.18 | 0.26 | 1.59 | **0.04** |
| Class III | t | 146.88 | 184.11 | 163.42 | 110.39 | 27.39 | 68.52 | **18.48** |
| Class IV | t | 269.09 | 236.30 | 180.10 | 10,052.07 | 9,970.11 | 2,582.74 | **196.57** |
| Class V | t | 7,142 | 7,925 | 9,863 | 12,182 | 15,495 | 22,170 | **2,925** |
| Waste from operations: | t | 20,397,162 | 27,821,209 | 24,353,551 | 7,838,902 | 1,194,574 | 18,907,770 | **34,958,97** |
| Over burden rocks | t | 18,222,979 | 25,188,323 | 22,101,404 | 5,602,431 | 150,161 | 14,989,050 | **27,370,170** |
| Wet tailings | t | 675,681 | 722,893 | 631,970 | 659,411 | 489,588 | 2,007,880 | **5,306,664** |
| Tailings | t | 1,498,502 | 1,909,993 | 1,620,177 | 1,577,060 | 554,825 | 1,910,840 | **2,282,063** |
| **Waste Management:** | | | | | | | | |
| Disposed at the plant | t | 17 | 28 | 22 | 9,816 | 9,809 | 0 | **0** |
| Reused at the plant | t | 2,546 | 2,484 | 2,696 | 74,624 | 1,589 | 111,721 | **40,453** |
| Buried at plant landfill | t | 20,397,162 | 26,418,779 | 24,353,551 | 7,838,902 | 838,885 | 18,797,987 | **34,921,456** |
| Transferred to contractors | t | 4,771 | 5,763 | 7,411 | 9,291 | 14,074 | 20,032 | **26.77** |
| ***4. Water Management*** | | | | | | | | |
| Water intake: | $m^3$ | 602,632 | 436,010 | 342,349 | 168,825 | 397,440 | 909,902 | **946,734** |
| Water disposal: | $m^3$ | 257,604 | 179,752 | 25,875 | 28,207 | 154,563 | 73,128 | **41,916** |
| Volume of reused water | $m^3$ | 177,064 | 44,878 | 34,900 | 38,466 | 1,437,849 | 5,342,000 | **4,589,575** |
| ***5. Energy Consumption & Conservation*** | | | | | | | | |
| **Consumption:** | | | | | | | | |
| Coil | t | 9,663 | 9,742 | 11,543 | 12,288 | 13,863 | 22,379 | **32,300** |
| Diesel fuel | l | 15,938,978 | 18,181,913 | 13,744,216 | 11,731,094 | 2,883,972 | 1,121,079 | **1,376,983** |
| Gasoline | l | 187,237 | 199,043 | 241,282 | 236,567 | 242,854 | 233,004 | **250,818** |
| Kerosene | l | 55 | 350 | 400 | 0 | 50 | 231 | **234** |

# CORPORATE GOVERNANCE REPORT

## CORPORATE GOVERNANCE PRACTICE

The Board of Directors (the "Board") of IRC is committed to promoting good corporate governance to safeguard the interests of the shareholders and to enhance the Group's performance. The Group believes that conducting its businesses in an open and responsible manner and following good corporate governance practices serve its long-term interests and those of its shareholders.

The Board as a whole is responsible for performing the corporate governance duties and ensuring compliance with the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited (the "Stock Exchange") (the "Listing Rules"). The Board reviews at least annually the corporate governance practices of the Company to ensure its continuous compliance with the Corporate Governance Code (the "CG Code") as stated in Appendix 14 of the Listing Rules, and make appropriate changes if considered necessary.

## BOARD OF DIRECTORS

The Board provides leadership and supervises the overall direction of the Group's businesses.

As at 31 December 2018, the Board comprised of nine Directors with two Executive Directors and seven Non-Executive Directors, of which five of them – representing more than half of the Board – are Independent Non-Executive Directors. The number of Independent Non-Executive Directors meets the requirements under Rule 3.10(A) of the Listing Rules. Each of the Independent Non-Executive Directors has made an annual confirmation of independence pursuant to Rule 3.13 of the Listing Rules. The Non-Executive Directors (including the Independent Non-Executive Directors) are appointed for a specific term not exceeding three years and are subject to retirement by rotation. No Independent Non-Executive Director has served the Company for more than nine years. Independent Non-Executive Directors are identified as such in all corporate communications containing the names of the Directors. An updated list of the directors identifying the Independent Non-Executive Directors and the roles and functions of the directors is maintained on the websites of the Company and the Stock Exchange. The roles of the chairman and the chief executive are separated and are performed by Peter Hambro and Yury Makarov, respectively.

The current composition of the Board is characterised by significant diversity in terms of nationality, age, professional background and skills.

The Board believes that the balance between Executive and Non-Executive Directors is reasonable and adequate to provide sufficient checks and balances that safeguard the interests of shareholders and the Group. The Non-Executive Directors provide the Group with diverse expertise and experience. Their views and participation in Board and committee meetings bring independent judgement and advice on issues relating to the Group's strategies, performance, conflicts of interest and management process, ensuring that the interests of all shareholders are taken into account. Two of the Independent Non-Executive Directors possess the appropriate professional accounting qualifications or related financial management expertise as required under the Listing Rules.

The Group provides briefings and other training to develop and refresh the directors' knowledge and skills. The Group, together with its legal counsel and external auditors, continuously update directors on the latest developments regarding the Listing Rules and other applicable regulatory requirements, to ensure compliance and enhance their awareness of good corporate governance practices.

During the year, the Company organised a formal training session for the directors of the Company. The training session covered topics including updates on Listing Rules and the corporate governance environment.

A summary of training received by the directors for the year ended 31 December 2018 is as follows:

| Directors | Type of training |
|---|---|
| **Executive Directors** | |
| Yury Makarov | A,B |
| Danila Kotlyarov | A,B |
| **Non-Executive Directors** | |
| Peter Hambro (appointed on 26 July 2018) | A,B |
| Patrick Chi Kin Cheng | A,B |
| George Jay Hambro (retired on 19 December 2018) | A,B |
| Sui Xin Cai (retired on 5 January 2018) | — |
| Benjamin Ng (appointed on 5 January 2018 and retired on 25 June 2018*) | B |
| **Independent Non-Executive Directors** | |
| Daniel Rochfort Bradshaw | A,B |
| Simon Murray | A,B |
| Jonathan Eric Martin Smith | A,B |
| Chuang-fei Li | A,B |
| Raymond Woo (re-designated as Independent Non-Executive Director on 5 January 2018) | A,B |

* Mr Benjamin Ng was not re-appointed as a Non-Executive Director at the Company's Annual General Meeting of 25 June 2018.

Notes:

A: attending briefing sessions and/or seminars

B: Reading seminar materials and updates relating to the latest development of the Listing Rules and other applicable regulatory requirements

The Board meets regularly to review the Group's operational performance, financial statements, material investments in new projects, dividend policy, major financings, treasury policies and changes in accounting policies. All directors have access to board papers and related materials which are provided in a timely manner, and are able to include matters in the agenda for board meetings. For the year ended 31 December 2018, the Chairman of the Company held a number of meetings with the Non-Executive Directors (including the Independent Non-Executive Directors) without the presence of other Executive Directors.

The Board held seven meetings in 2018 and the attendance of individual directors is set out in the table on page 59.

The Company Secretary supports the Chairman, the Board and the Board Committees by ensuring good information flow and that the policies and procedures of the Board are followed. The Company Secretary advises the Board on governance matters and facilitates the induction and professional development of Directors. The Company Secretary is an employee of the Company and is appointed by the Board. All Directors may call upon the Company Secretary for advice and assistance at any time in respect to their duties and the effective operation of the Board and Board Committees. The Company Secretary also plays an essential role in the relationship between the Company and its shareholders, including assisting the Board in discharging its obligations to shareholders pursuant to the Listing Rules.

The day-to-day management and operation of the Group are delegated to the Executive Committee ("EC"), which comprises the Executive Directors, the Company Secretary and other senior management members of the Group. The EC is the principal management decision making body on all day-to-day operations and business affairs of the Group. The EC operates under guidelines and delegated authorities from the Board and meets on a regular basis.

## AUDIT COMMITTEE

The Audit Committee consists of three Independent Non-Executive Directors – Chuang-fei Li (Chairman), Daniel Rochfort Bradshaw and Jonathan Eric Martin Smith. The principal duties of the Committee include the review and supervision of the Group's financial reporting system and internal control procedures. During 2018, the Audit Committee reviewed the interim and annual reports and held discussions with the external auditor regarding financial reporting, compliance, scope of audit, policies for maintaining independence and reported to the Board. The terms of reference for the Audit Committee are maintained on the websites of the Company and the Stock Exchange.

The Committee met three times in 2018 and the attendance of Committee members is set out in the table on page 59.

## REMUNERATION COMMITTEE

The Remuneration Committee is chaired by Jonathan Eric Martin Smith and its other members are Chuang-fei Li and Daniel Rochfort Bradshaw, all of whom are Independent Non-Executive Directors. The principal duty of the Committee is to review and make recommendations to the Board on the Group's policy and structure for all remuneration of directors and senior management.

The Remuneration Committee meets regularly and reviews the structure of remuneration for the board of directors on an ongoing basis and has the responsibility for the determination, within agreed terms of reference, of specific remuneration packages for all directors and other members of the Executive Committee, including salaries, retirement benefits, bonuses, long-term incentives, benefits in kind and other compensation payments. The Remuneration Committee is committed to bringing independent thought and scrutiny to the development and review process of the Group with regards to remuneration.

The Company's remuneration policy is designed to attract, retain and motivate the highly talented individuals needed to deliver its business strategy and to maximise shareholder value. Consistent with previous years, the policy for 2018 and so far as practicable, for subsequent years, is framed around the following principles:

- remuneration arrangements will be designed to support the Company's business strategy and to align it with the interests of the Company's shareholders;

- total reward levels will be set at appropriate levels to reflect the competitive global market in which the Company operates, with the intention of positioning such levels within a peer group of global mining companies;

- a high proportion of the remuneration should be "at risk", with performance-related remuneration making up at least 50% of the total potential remuneration for Executive Committee members; and

- performance-related payments will be subject to the satisfaction of demanding and stretching performance targets over the short and long term, which are designed to promote the long-term success of the Group. These performance targets will be set in the context of the prospects of the Group, the prevailing economic environment in which it operates and the relative performance against that of competitor companies.

The Remuneration Committee considers that a successful remuneration policy needs to be sufficiently flexible to take into account future changes in the business environment and in remuneration practices. Consequently, the remuneration policy and the Remuneration Committee's terms of reference are reviewed annually to reflect matters such as changes to corporate governance best practice or changes to accounting standards or business practices among peer group mining companies. This will help ensure that the policy continues to provide the Company with a competitive reward strategy. In doing so, the Remuneration Committee will take into account the relevant Listing Rules, the guidance of independent consultants and best-practice on the design of performance-related remuneration.

The terms of reference for the Remuneration Committee are maintained on the websites of the Company and the Stock Exchange.

The Remuneration Committee is satisfied that the Company's pay and employment conditions for both directors and non-Board employees around the world are appropriate to the various markets in which the Group operates. Further details of the Group's remuneration policy and practices in 2018 are set out in a letter from the Remuneration Committee Chairman below.

The Remuneration Committee held one meeting in 2018 and the attendance of Committee members is set out in the table on page 59.

## A letter from the Remuneration Committee Chairman

Dear Shareholder,

On behalf of the Board and the Remuneration Committee, I present the IRC 2018 Remuneration Report.

We have maintained the 2017 format and content of the Remuneration Report to provide a clear explanation of our rationale for determining remuneration policy, annual awards and longer-term incentives, a format that we believe is:

— clear and transparent;
— conforms to Hong Kong requirements; and
— in line with best practice in the international markets.

Consistent with previous years, the Remuneration Committee has considered and determined all elements of remuneration solely in the context of assessing the Group's achievements and, where relevant, individual performance on a standalone basis during 2018.

Our remuneration policy continues to aim to attract, retain and motivate the high-performing individuals we rely on to deliver our business strategy and create long-term value. We believe that performance-related pay should incentivise exceptional performance and that rewards should be closely linked to and commensurate with performance. As a result, performance-related pay represents a significant portion of total pay for all managers.

For executive directors, "at risk" performance-related pay typically represents more than 50% of total available remuneration. We measure performance against a broad range of health and safety, sustainability, financial and operational criteria. We benchmark our remuneration against the global mining industry and our primary peer group, as well as global companies. Further details regarding our remuneration policy is set out in the following pages. It is the Remuneration Committee's intention to continue to apply this remuneration policy in the future for as long as IRC remains an independent, listed company.

In 2015 an aggressive cost saving approach was taken by reducing salaries and directors' fees (as applicable) for all Board members by 15%, which also applied to most of senior management of the Group. A further 10% reduction in salaries and directors' fees (as applicable) for Board members and most of senior management was implemented in January 2016. In light of K&S commencing commercial production and the recovery in the commodities market, in September 2017, the reduced salaries and directors' fees were partially restored. The 2018 remuneration level was about 10% to 15% below the original level in 2015. No bonuses were paid in 2018.

The Remuneration Committee reviewed the vesting conditions of the employee share options that were granted in 2015 and 2017, and had decided to vest 151,704,081 options to the grantees and write off 21,672,016 share options in 2018.

Full details regarding the above activities are set out below.

## Members

The Remuneration Committee is chaired by Jonathan Eric Martin Smith and its other members are Chuang-fei Li and Daniel Rochfort Bradshaw, all of whom are Independent Non-Executive Directors. Details of the Remuneration Committee's role, meetings and activities can be found on page 51 under the heading "Remuneration Committee".

The Remuneration Committee receives advice on pay and conditions across the Group from the Chairman and Chief Executive of IRC although they do not attend all meetings of the Remuneration Committee. An independent certified public accountant firm provided independent advice to the Remuneration Committee on certain areas of executive remuneration. Norton Rose Fulbright provided legal advice on incentive plan rules (as well as providing legal advice to the Group).

## Remuneration policy

Our remuneration policy and practices aim to attract, retain and motivate the high-performing individuals we rely on to deliver our business strategy and create long-term value. We believe that performance-related pay should incentivise exceptional performance and that rewards should be closely linked to and commensurate with performance. As a result, for 2018, the remuneration of individuals within the Group have been determined on the following basis:

1. Over 50% of the potential executive pay package is performance-related and therefore "at risk" (i.e. the contractual obligation to pay is dependent on satisfaction of performance criteria).

2. For exceptional performance, potential pay levels are positioned in the upper quartile in comparison to the global mining industry.

3. Performance is assessed on a holistic basis, taking into account a wide variety of factors that are aligned to the delivery of superior long-term returns to IRC's shareholders and continuous and sustainable improvements in the underlying operating and financial performance of IRC.

   — Individual performance criteria for annual bonus awards reflect health and safety, environment and sustainability performance; financial performance in both absolute and relative terms; and the effective delivery of strategic priorities including the project pipeline, and various lead performance indicators. The use of multiple factors ensures that bonuses cannot be earned on the basis of inappropriate or risky behaviour and avoids rewarding achievements against one or narrow objectives that come at the expense of performance in other areas.

   — The value of long-term incentives is dependent upon share price performance and vesting is subject to the satisfaction of stretching performance conditions. In the event that performance is below threshold, participants will receive no benefit from long-term incentives.

4. Pay arrangements are intended to remain in place, so far as is practicable, throughout the business cycle. We have therefore avoided making frequent changes to incentive arrangements or performance metrics. In determining policy and practice, the key factors we take into account include:

    — the Listing Rules;

    — the code provisions set out in the CG Code;

    — the competitive environment for experienced personnel in the global extractive industries sector;

    — the guidance provided by a number of institutional investor representative bodies; and

    — feedback received from Shareholders.

We also take into account pay and employment conditions across IRC when setting the remuneration of the Chairman and the Executive Directors. We do not believe a ratio comparison between the Executive Directors and non-Board employees is appropriate. A ratio comparison does not provide a useful measure of fairness or balance due to the vastly different costs of living in the countries where we have operations and fluctuations in exchange rates. However, we regularly assess the fairness and balance of our remuneration policies and practices internally and also benchmark them against our competitors in the various regions in which we operate.

## Base salary

| | |
|---|---|
| Purpose | — Attract and retain talented and experienced executives from an industry in which there is competition for talent.<br>— Reflect the individual's capabilities and experience.<br>— Reward leadership and direction of IRC on behalf of shareholders. |
| Policy | — Reviewed annually.<br>— Set at a competitive level benchmarked against other global mining and major Hong Kong companies using independent external data.<br>— Consider the individual's skills, experience and influence over, and responsibility for, the success of the business.<br>— The impact of any salary increase awarded on the value of the total package is considered carefully prior to any change being made.<br>— Ensure that our approach to pay is consistent across the levels of management. |
| Link to strategy | — Protect and generate shareholder value through the retention and attraction of high-calibre individuals. |
| Risk management | — Enhance retention of key personnel to ensure business continuity.<br>— Structured and policy-driven approach to conducting salary reviews. |

## Salary review for 2018

A reduction in salary or directors' fees (as applicable) of 15% was implemented for all Directors in March 2015. A further 10% reduction was introduced in January 2016. In light of K&S commencing commercial production and the recovery in the commodities market, in September 2017, the reduced salaries and directors' fees were partially restored. The 2018 remuneration level was about 10% to 15% lower than the original level in 2015.

| | For the year ended 31 December | | | | | |
|---|---|---|---|---|---|---|
| | 2018 | | | 2017 | | |
| US$'000 | Directors' fees | Salaries and other benefits | Total | Directors' fees | Salaries and other benefits | Total |
| **Executive Directors** | | | | | | |
| Yury Makarov | – | 708 | 708 | – | 642 | 642 |
| Danila Kotlyarov | – | 612 | 612 | – | 569 | 569 |
| **Non-Executive Directors** | | | | | | |
| Peter Hambro (a) (g) | 42 | – | 42 | – | – | – |
| Cheng Chi Kin | 90 | – | 90 | 76 | – | 76 |
| George Jay Hambro (b) | 185 | – | 185 | 181 | – | 181 |
| Benjamin Ng (c) | – | – | – | – | – | – |
| Sui Xin Cai (d) | – | – | – | – | – | – |
| **Independent Non-Executive Directors** | | | | | | |
| Daniel Rochfort Bradshaw (e) | 126 | – | 126 | 115 | – | 115 |
| Simon Murray | 90 | – | 90 | 83 | – | 83 |
| Jonathan Eric Martin Smith (g) | 126 | – | 126 | 115 | – | 115 |
| Chuang-fei Li | 126 | – | 126 | 115 | – | 115 |
| Raymond Woo (f) | 90 | – | 90 | 83 | – | 83 |
| | 875 | 1,320 | 2,195 | 768 | 1,211 | 1,979 |

(a) Appointed as Non-Executive Director on 26 July 2018 and as Chairman on 19 December 2018.

(b) Retired as Non-Executive Chairman on 19 December 2018. Certain amounts included in director's fee were paid to an independent service company providing management services to IRC that is consequently classed as an affiliated company to the director.

(c) Benjamin Ng was appointed as a Non-Executive Director on 5 January 2018 and was not reappointed at the Annual General Meeting of the Company on 25 June 2018.

(d) Retired as Non-Executive Director on 5 January 2018.

(e) Appointed as Deputy Chairman on 5 January 2018.

(f) Re-designated from Non-Executive Director to Independent Non-Executive Director on 5 January 2018.

(g) Director's fee was paid to an independent service company which is classed as an affiliated company to the director.

## Executive Committee Bonus Plan

| | | |
|---|---|---|
| Purpose | — | Align executives' interests with the short-term goals of IRC and the drivers of the Group's long-term success. |
| | — | Reward the delivery of shareholder value through the effective execution of strategy, the profits delivered to shareholders and lead indicators of future success including safety and environmental sustainability. |
| Policy | — | Maximum bonus awarded for truly exceptional performance is 100% of salary. |
| | — | The overall bonus pool is determined according to budgeting analysis. |
| | — | Individual payments are determined with respect to a range of key financial and non-financial metrics. These metrics include health and safety, employee development, environment and sustainability, profit and cash generation, volume and project execution. |
| Link to strategy | — | Provides alignment among the executives' interests, the short-term financial success of IRC and the creation of shareholder value. |
| | — | The Remuneration Committee takes a comprehensive view of an appropriate level of award for each individual to ensure that bonus awards truly reflect IRC's performance and management's impact on this (rather than purely resultant from external market and cyclical factors). |

| | |
|---|---|
| Risk management | — Bonus pool analysis alongside budgeting ensures affordability. |
| | — Focus on a wide range of financial and non-financial metrics ensures that bonus awards reward sustainable, holistic performance. |
| | — Bonus analysis alongside entire remuneration package, with particular reference to the long-term incentive arrangements (further details below), ensures a focus on long-term sustainable performance and aligns management interest with shareholders. |
| | — Determination process takes account of the extent to which performance has been driven by management activity and planning as opposed to external market and cyclical factors and response to events that were not anticipated at the start of the year. |

## Bonus review for 2018

No bonuses were paid in 2018.

## Long-term incentive arrangements

| | |
|---|---|
| Purpose | — Align the financial interests of executives with those of shareholders. |
| | — Incentivise the creation of shareholder value through the absolute performance of the Company and its assets as well as the recognition of such value creation in the public markets. |
| | — Provide a focus on long-term, sustainable performance. |
| Policy | — Share options are granted to high-performing/high potential individuals. |
| | — Vesting is dependent upon pre-determined targets that focus on “Operations”, “Development”, “Profitability” and “Health, Safety and Environment”, normally over a three-year period, as set out below. |
| Link to strategy | — Vesting conditions are aligned with strategic direction of shareholder value creation. |
| Risk management | — Share based incentives ensure a focus on long-term sustainable performance and align management interests with shareholders. |

The Company adopted a share option scheme pursuant to Chapter 17 of the Listing Rules on 20 November 2015 (the "Share Option Scheme") which is valid and effective for a period of 10 years from the date of adoption. Any employee, director and any person or entity acting in their capacities as consultants of the Group ("Eligible Persons") may be granted share options under the Share Option Scheme.

The Share Option Scheme is designed to incentivise, reward and retain key Eligible Persons in the Group by providing a reward for long term performance of the Eligible Persons and of the Group, and which aligns the interests of the Eligible Persons with those of the Company's long term shareholders. The Eligible Persons will only benefit from the Share Option Scheme if they satisfy certain conditions, including remaining with the Group for a minimum number of years.

Under the Share Option Scheme, the Remuneration Committee will from time to time propose to the Board for approval the grant of share options and the number of share options to be granted to the relevant Eligible Persons. The subscription price shall be determined by the Board and notified to an Eligible Person. Performance targets, if any, will be determined by the Board and be stated in the offer. Whether such targets have been successfully achieved will be decided by the Board. The Board may also determine a minimum period of time for which an option must be held before it can be exercised (the "vesting period"). Further details of the Share Option Scheme are set out in note 28 to the Consolidated Financial Statements.

Two batches of share options were granted, one in 2015 and the other in 2017, and the vesting of these options is conditional upon the achievement of certain performance targets during the vesting period. The exercise prices of the share options granted in 2015 and 2017 are HK$0.2960 and HK$0.2728 respectively, which are higher than the closing share price of the Company as of 31 December 2018 of HK$0.047. In relation to the batch issued in 2015, 10,274,142 options were due to vest to each of George Jay Hambro, Yury Makarov and Danila Kotlyarov in 2018. After assessing the level of achievement of the performance targets, the Board has decided to vest 8,989,874 options to each of the aforesaid three directors and to write off the remaining 1,284,268 options for each of these directors. In relation to the batch issued in 2017, 12,400,000 options were due to vest to each of George Jay Hambro, Yury Makarov and Danila Kotlyarov in 2018. After assessing the level of achievement of the performance targets, the Board has decided to vest 10,850,000 options to each of the aforesaid three directors and to write off the remaining 1,550,000 options for each of these directors.

The share options granted to the directors are summarised in the table below.

| | Number of share options | | | | | | | | | | Exercise price HK$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Granted | Vested in | | Written off in | | Unvested as of 31 Dec | | Exercised in | | | |
| | | 2017 or before | 2018 | 2017 or before | 2018 | 2017 | 2018 | 2017 | 2018 | | |
| **Share options granted in 2015** | | | | | | | | | | | |
| George Jay Hambro (a) | 30,822,425 | 15,411,212 | **8,989,874** | 5,137,071 | **1,284,268** | – | **–** | – | **–** | | 0.2960 |
| Yury Makarov | 30,822,425 | 15,411,212 | **8,989,874** | 5,137,071 | **1,284,268** | – | **–** | – | **–** | | 0.2960 |
| Danila Kotlyarov | 30,822,425 | 15,411,212 | **8,989,874** | 5,137,071 | **1,284,268** | – | **–** | – | **–** | | 0.2960 |
| **Share options granted in 2017** | | | | | | | | | | | |
| George Jay Hambro (a) | 37,200,000 | – | **10,850,000** | – | **1,550,000** | 37,200,000 | **24,800,000** | – | **–** | | 0.2728 |
| Yury Makarov | 37,200,000 | – | **10,850,000** | – | **1,550,000** | 37,200,000 | **24,800,000** | – | **–** | | 0.2728 |
| Danila Kotlyarov | 37,200,000 | – | **10,850,000** | – | **1,550,000** | 37,200,000 | **24,800,000** | – | **–** | | 0.2728 |

a) The options were granted to an independent service company providing management services to IRC that is consequently classed as an affiliated company to the director.

The Remuneration Committee has commissioned one of the leading firms of certified public accountants to conduct an independent review of the Share Option Scheme. It is considered that the Share Option Scheme motivates grantees to achieve challenging yet realistic targets, which are crucial in adding significant value to the Company and are in the best interest of IRC shareholders. The certified public accountants firm concluded that the Share Option Scheme is well designed to attract, retain and incentivise grantees.

## Retirement benefits

The Executive Directors participate in plans which target in retirement benefit. IRC makes contributions which are assessed annually by the Remuneration Committee.

| | For the year ended 31 December | |
|---|---|---|
| US$'000 | **2018** | 2017 |
| Yury Makarov | **89** | 80 |
| Danila Kotlyarov | **2** | 2 |
| | **91** | 82 |

Approved by the Board and issued on its behalf by
**Jonathan Eric Martin Smith**
Remuneration Committee Chairman

29 March 2019

## NOMINATION COMMITTEE

The Nomination Committee is chaired by the Non-Executive Chairman of IRC, Peter Hambro. Its other members are Daniel Rochfort Bradshaw and Jonathan Eric Martin Smith, both are Independent Non-Executive Directors. The Committee meets at least once a year.

The Nomination Committee is responsible for formulating policy and making recommendations to the Board on nominations and appointment of Directors as well as on the diversity and succession of the Board. The Committee develops selection procedures for candidates, and will consider different criteria including appropriate professional knowledge and industry experience, as well as consult external recruitment professionals when required. The Board, through the Nomination Committee, has also adopted a board diversity policy which sets out the approach taken to diversify the members of the Board. The Company seeks to achieve board diversity through the consideration of a number of factors, including but not limited to gender, age, cultural and educational background, ethnicity, professional experience, skills, knowledge and length of service. Ultimately, all board appointments are based on merit and candidates are considered against objective criteria, but due regard is given for the benefits of a diverse Board.

The Committee also reviews the size, structure and composition of the Board and assesses the independence of the Independent Non-Executive Directors. The Committee is provided with sufficient resources enabling it to perform its duties and it can seek independent professional advice at the Company's expense if necessary. The terms of reference for the Nomination Committee are maintained on the websites of the Company and the Stock Exchange.

During 2018, the Committee met twice and the attendance of Committee members is set out in the table on this page.

## HEALTH, SAFETY AND ENVIRONMENT COMMITTEE

The Health, Safety and Environmental Committee consists of three Independent Non-Executive Directors – Daniel Rochfort Bradshaw (Chairman), Jonathan Eric Martin Smith and Chuang-fei Li, and is responsible for evaluating the effectiveness of the Group's policies and systems for identifying and managing health, safety and environmental risks within the Group's operations and for ensuring compliance with health, safety and environmental regulatory requirements. The Committee also assesses the performance of the Group with regards to the impact of health, safety, environmental and community relations, decisions and actions.

The Committee provides the Board with regular updates to assist in overseeing matters relating to enhancing the Company's global reputation of responsible corporate stewardship, conscientious corporate social responsibility and product sustainability. In doing so, professional advice may be sought if considered necessary. The Committee also has the authority to invite key members of operational management to meetings to discuss the performance of the Group.

For the year ended 31 December 2018, the Committee met once and the attendance of Committee members is set out in the table below.

## BOARD AND COMMITTEE MEETINGS AND ATTENDANCE

The number of meetings the Board and other Committees scheduled during 2018 are shown below together with attendance details:

| | Meeting attended/Held | | | | |
|---|---|---|---|---|---|
| | Board | Audit Committee | Remuneration Committee | Nomination Committee | Health, Safety and Environment Committee |
| **Chairman and Non-Executive Director** | | | | | |
| Peter Hambro (a) | 5/5 | – | – | 0/0 | – |
| **Deputy Chairman and Independent Non-Executive Director** | | | | | |
| Daniel Rochfort Bradshaw | 7/7 | 3/3 | 1/1 | 2/2 | 1/1 |
| **Executive Directors** | | | | | |
| Yury Makarov | 7/7 | – | – | – | – |
| Danila Kotlyarov | 7/7 | – | – | – | – |
| **Non-Executive Directors** | | | | | |
| Patrick Cheng | 4/7 | – | – | – | – |
| George Jay Hambro (b) | 6/7 | – | – | 0/2 | – |
| Benjamin Ng (c) | 1/2 | – | – | – | – |
| Cai Sui Xin (d) | 0/0 | – | – | – | – |
| **Independent Non-Executive Directors** | | | | | |
| Simon Murray | 6/7 | – | – | – | – |
| Jonathan Eric Martin Smith | 7/7 | 3/3 | 1/1 | 2/2 | 1/1 |
| Chuang-fei Li | 7/7 | 3/3 | 1/1 | – | 1/1 |
| Raymond Woo (e) | 7/7 | – | – | – | – |

(a) Appointed as Non-Executive Director on 26 July 2018 and as Chairman of the Company and the Nomination Committee on 19 December 2018.

(b) Retired as Non-Executive Director and Chairman of the Company and Chairman of Nomination Committee on 19 December 2018. George Jay Hambro recused himself from attending both Nomination Committee meetings due to family conflict.

(c) Appointed as Non-Executive Director on 5 January 2018 and was not reappointed as Non-Executive Director at the Company's Annual General Meeting on 25 June 2018.

(d) Retired of Non-Executive Director on 5 January 2018.

(e) Re-designated from Non-Executive Director to Independent Non-Executive Director on 5 January 2018.

## DIVIDEND POLICY

When setting the dividend, the Board looks at a range of factors, including the macro environment, the current balance sheet, future investment plans and capital requirements. The Company typically considers paying annual dividends on the basis of its results for the previous year. The dividend policy of the Company aims to provide for a regular and sizeable dividend flow to its shareholders whilst allowing the Company to maintain the financial flexibility to take advantage of attractive investment opportunities in the future.

## AUDITORS' INDEPENDENCE AND REMUNERATION

Independence of the auditors is of critical importance to the Audit Committee, the Board and shareholders. The auditors write annually to the members of the Audit Committee confirming that they are independent accountants within the meaning of the Code of Ethics for Professional Accountants issued by Hong Kong Institute of Certified Public Accountants and that they are not aware of any matters which may reasonably be thought to bear on their independence. The Audit Committee assesses the independence of the auditors by considering and discussing each such letter (and having regard to the fees payable to the auditors for audit and non-audit work) at a meeting of the Committee.

The Auditors' Report to the shareholders states the auditors' reporting responsibilities.

Fees for services rendered by the auditors to the Group for the year ended 31 December 2018 and the comparative figures for the year ended 31 December 2017 are set out below:

| | For the year ended 31 December | |
|---|---|---|
| US$'000 | **2018** | 2017 |
| Audit | **510** | 456 |
| Non-audit | **–** | 30 |
| | **510** | 486 |

## SHAREHOLDER RELATIONS

The Board has established a shareholders' communication policy which sets out the principles of the Company in relation to shareholders' communications, with the objective of ensuring that its communications with the shareholders are timely, transparent, accurate and open. Information is communicated to the shareholders mainly through the Company's corporate communications (such as quarterly trading updates, interim and annual reports, announcements and circulars), at the annual general meetings ("AGM") and other general meetings, as well as disclosure on the website of the Company.

Interim reports, annual reports and circulars are sent to the shareholders in a timely manner and are also available on the website of the Company. The Company's website provides shareholders with corporate information, such as its principal business activities and major projects, the corporate governance practices of the Group and the corporate social responsibilities of the Group. For efficient communication with shareholders and in the interest of environmental protection, arrangements are in place which allow shareholders to elect to receive corporate communications of the Company by electronic means through the Company's website.

Shareholders are provided with contact details of the Company, such as telephone, fax number, email address and postal address, in all communications to shareholders and on the Company's website which enable them to make any query that they may have with respect to the Company. They can also send their enquiries to the Board through these means, ensuring that shareholders' views are communicated to the Board. The Company's AGM also allows the Directors to meet and communicate directly with shareholders.

In addition, shareholders can contact Tricor Investor Services Limited, the share registrar of the Company, if they have any enquiries about their shareholdings and entitlements to dividend.

AGM proceedings are reviewed from time to time to ensure that the Company follows good corporate governance practices. The notice of AGM is distributed to all shareholders prior to the AGM and the accompanying circular also sets out details of each proposed resolution and other relevant information as required under the Listing Rules. For each separate issue to be considered at the AGM, separate resolutions are proposed by the chairman of the AGM. The chairman of the AGM exercises his power under the Articles of Association of the Company to put each proposed resolution to the vote by way of a poll. The procedures for demanding and conducting a poll are explained at the meeting prior to the polls being taken. Voting results are posted on the Company's website the next business day after the day of the AGM.

The most recent AGM was held on 25 June 2018. At the AGM, separate resolutions were proposed for each issue and were voted on by poll. Five out of eight resolutions proposed at the AGM were passed. The matters discussed and the percentage of votes cast in favour of the resolutions were:

| Matters being voted upon | % of affirmative votes |
|---|---|
| To receive and consider the audited consolidated financial statements and the reports of the Directors and Auditor for the year ended 31 December 2017. | 100.00% |
| To re-appoint Messrs Deloitte Touche Tohmatsu as Auditor and authorise the Board of Directors to fix the remuneration of the Auditor. | 100.00% |
| To elect Mr Benjamin Tze For Ng as Non-Executive Director. | 21.34% |
| To re-elect Mr Cheung-fei Li as Independent Non-Executive Director. | 99.98% |
| To give a general mandate to the Directors to repurchase shares in the Company not exceeding 10% of the number of Shares of the Company in issue. | 100.00% |
| To give a general mandate to the Directors to issue, allot and deal with additional shares in the Company not exceeding the sum of 20% of the number of Shares of the Company in issue. | 94.69% |
| To add shares repurchased to the general mandate to issue new shares. | 16.03% |
| To refresh the existing scheme mandate limit in respect of granting of options to subscribe for shares of the Company under the Company's existing share option scheme. | 16.03% |

An Extraordinary General Meeting ("EGM") was held on 9 August 2018. At the EGM, separate resolutions were proposed for each issue and were voted on by poll. Cayiron Limited, a subsidiary of Petropavlovsk PLC which held a total of 2,205,900,000 shares, abstained from voting on Resolution I due to conflict of interest. All resolutions proposed at the EGM were passed. The matters discussed and the percentage of votes cast in favour of the resolutions were:

| Matters being voted upon | | % of affirmative votes |
|---|---|---|
| To: | | |
| I) | i) To ratify, confirm and approve the Assignment of Contracts; ii) To ratify, confirm and approve the Share Pledge; iii) To ratify, confirm and approve the Power of Attorney; iv) To authorise the Directors to execute such all other documents, do all other acts and things and take such actions to give effect to the Assignment of Contracts, the Share Pledge and the Power of Attorney and any other transactions contemplated thereunder and to agree to such variation, amendment or waiver as, in the opinion of the Directors, in the interest of the Company and its Shareholders as a whole; and v) To ratify, confirm and approve the interest rate reduction under the Bridge Loan. | 91.83% |
| II) | To add shares repurchased to the general mandate to issue new shares. | 98.65% |
| III) | To refresh the existing scheme mandate limit in respect of granting of options to subscribe for shares of the Company under the Company's existing share option scheme. | 96.93% |

## SHAREHOLDERS' RIGHTS

### Procedures for convening a general meeting

Shareholder(s) holding at least 5% of the total voting right of the Company of all the shareholders having a right to vote at general meetings may, in accordance with the requirements and procedures set out in Companies Ordinance (Chapter 622 of the Laws of Hong Kong) (the "Companies Ordinance"), request the Board to convene a general meeting by requisition, by stating the general nature of the business to be dealt at a general meeting and depositing the signed requisition at the registered office of the Company for the attention of the Company Secretary in hard copy form.

### Procedures for putting forward proposals at an annual general meeting

(a) Shareholder(s) holding at least 2.5% of the total voting rights or (b) at least 50 shareholders having a right to vote on the resolution at an annual general meeting may, in accordance with the requirements and procedures set out in Companies Ordinance, requisition for the circulation of resolutions to be moved at annual general meetings and circulation of statements of not more than 1,000 words with respect to the matter referred to in the proposed resolution. Such written request must (i) state the resolution and signed by all the requisitionists in one or more documents in like form; and (ii) be deposited in hard copy form at the registered office of the Company for the attention of the Company Secretary not less than six weeks before the annual general meeting; or if later, the time at which notice is given of that annual general meeting.

The detailed procedures for shareholders to convene and put forward proposals at an AGM or other general meeting, including proposing a person other than a retiring director for election as a director, are set out in the Company's website. Shareholders may send their enquiries requiring the Board's attention to the Company at the registered address of the Company.

### Constitutional documents

Rights of the shareholders are also provided under the Articles of Association. There have been no changes to the company's constitutional documents during the year.

## COMPLIANCE WITH CORPORATE GOVERNANCE CODE AND MODEL CODE

Throughout the year, the Company has complied with the code provisions set out in the Corporate Governance Code as stated in Appendix 14 of the Rules Governing the Listing of Securities (the "Listing Rules") on The Stock Exchange of Hong Kong Limited except that the Independent Non-Executive Director, Mr. Simon Murray, CBE, Chevalier de la Légion d'Honneur was unable to attend the annual general meeting of the Company held on 25 June 2018 as provided for in code provision A.6.7 as he had overseas engagements.

The Company has adopted the Model Code for Securities Transactions by Directors of Listed Issuers set out in Appendix 10 of the Listing Rules (the "Model Code"). The Company has made specific enquiry of all the Directors regarding any non-compliance with the Model Code during the year and they have confirmed their full compliance with the required standard set out in the Model Code.

The Company has also adopted the Model Code as the Code for Securities Transactions by Relevant Employees to regulate dealings in securities of the Company by certain employees of the Company, or any of its subsidiaries and holding companies, who are considered to be likely in possession of unpublished price sensitive information in relation to the Company or its securities.

## DIRECTORS' RESPONSIBILITY STATEMENT

The Board acknowledges its responsibility to ensure that sound and effective internal control systems are maintained so as to safeguard the Group's assets and the interests of shareholders. The Board is responsible for reviewing the internal control policies and has delegated the day-to-day management of operational risks to the Executive Committee. Independent consultants are hired where necessary to assist the Board to perform a high-level risk assessment of the Group, which entails identifying, analysing and assessing key risks faced by the Group. By reference to a globally recognised internal controls framework, the high-level risk assessment covered all key controls including financial, compliance and operational controls and risk management systems.

The directors of the Company are responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with Hong Kong Financial Reporting Standards issued by the Hong Kong Institute of Certified Public Accountants (the "HKICPA") and the Hong Kong Companies Ordinance. The Group's annual results and interim results are announced in a timely manner, and the consolidated financial statements of the Group and the Independent Auditor's Report is set out at page 75.

On behalf of the Board

**Peter Hambro**
*Chairman*

29 March 2019

# DIRECTORS' REPORT

The Directors present their Report together with the audited consolidated financial statements of the Company and its subsidiaries (collectively referred to as the "Group") for the year ended 31 December 2018.

## PRINCIPAL ACTIVITIES

The Company was incorporated with limited liability in Hong Kong on 4 June 2010 under the Hong Kong Companies Ordinance. The principal activity of the Company is investment holding and the principal activities of its subsidiaries, associates and jointly controlled entity are the production and development of industrial commodities products.

The analysis of the principal activities and geographical locations of the operation of the Group for the year ended 31 December 2018 is set out in note 6 to the consolidated financial statements.

## BUSINESS REVIEW AND PERFORMANCE

A fair review of the business of the Company is provided in the Chairman Statement, CEO and CFO Statement & Results of Operations on pages 3 and 5 respectively. Discussion and analysis of the Group's performance during the year and the material factors underlying its results and financial position and particulars of important events affecting the Group that have occurred since the end of the financial year are provided throughout this Annual Report, particularly in the CEO and CFO Statement & Results of Operations section on pages 5 to 13. Descriptions of the principal risks and uncertainties facing the Group can be found throughout this Annual Report, particularly in the Risk Factors section on page 163. The future development of the Company's business is discussed throughout this Annual Report including in the Chairman Statement as well as the CEO and CFO Statement on pages 3 and 5 respectively. An analysis of the Group's business and operations using financial key performance indicators can be found in the Key Performance Indicators section on pages 14 to 15 while an account of the Company's key relationships with its employees, customers and suppliers and others that have a significant impact on the Company and on which the Company's success depends is provided throughout this Annual Report, particularly in the Remuneration Committee section of the Corporate Governance Report on pages 49 to 63 and the Directors' Report on pages 64 to 73. In addition, details regarding the Group's performance by reference to environmental and social-related key performance indicators and policies, as well as compliance with relevant laws and regulations which have a significant impact to the Group, are provided in the Health Safety Environment Community section on pages 29 to 48.

## DIVIDEND

The Board does not recommend the distribution of a dividend for the year ended 31 December 2018.

## PROPERTY, PLANT AND EQUIPMENT

Details of the movements in property, plant and equipment during the year ended 31 December 2018 are set out in note 17 to the consolidated financial statements.

## SHARE CAPITAL

There were no changes in the share capital of the Company in 2018.

## RESERVES

Details of reserves available for distribution and movements in reserves during the year are set out in the section "Consolidated Statement of Changes in Equity" of the consolidated financial statements.

## DIRECTORS

The Directors during the year and up to the date of this report were:

### Chairman and Non-Executive Director:

Peter Hambro*

### Deputy Chairman and Independent Non-Executive Director:

Daniel Rochfort Bradshaw**

### Executive Directors:

Yury Makarov
Danila Kotlyarov

### Non-Executive Directors:

Patrick Chi Kin Cheng
George Jay Hambro***
Benjamin Ng****
Sui Xin Cai^

### Independent Non-Executive Directors:

Simon Murray, *CBE, Chevalier de la Légion d'honneur*
Jonathan Eric Martin Smith
Chuang-fei Li
Raymond Woo^^

* Peter Hambro was appointed as Non-Executive Director on 26 July 2018 and as Chairman on 19 December 2018.

** Daniel Rochfort Bradshaw was appointed as Deputy Chairman on 5 January 2018.

*** George Jay Hambro retired as Chairman and Non-Executive Director on 19 December 2018.

**** Benjamin Ng was appointed as a Non-Executive Director on 5 January 2018 and was not reappointed as Non-Executive Director at the Company's Annual General Meeting on 25 June 2018.

^ Sui Xin Cai retired of Non-Executive Director on 5 January 2018.

^^ Raymond Woo was re-designated from Non-Executive Director to Independent Non-Executive Director on 5 January 2018.

## DIRECTORS' SERVICE CONTRACTS

The Company has entered into letters of appointment with each of its Directors, pursuant to which each Director is appointed for a term of three years and is subject to termination in accordance with their respective terms.

## DIRECTORS OF SUBSIDIARIES

The list of directors who have served on the board(s) of the subsidiaries of the Company during the year and up to the date of this report are shown on the Company's website.

## PERMITTED INDEMNITY PROVISIONS

During the financial year and up to the date of this Report, the Company has in force indemnity provisions as permitted under the relevant statutes for the benefit of the Directors of the Company or its associated companies. The permitted indemnity provisions are provided for in the Company's Articles of Association and in the directors and officers liability insurance maintained for the Group in respect of potential liability and costs associated with legal proceedings that may be brought against such Directors.

## DIRECTORS' INTERESTS

As at 31 December 2018, the interests or short positions of the Directors of the Company in the shares, underlying shares and debentures of the Company or any of its associated corporations (within the meaning of Part XV of the Securities and Futures Ordinance ("SFO") which were notified to the Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests or short positions which they were taken or deemed to have under such provisions of the SFO), or which were recorded in the register required to be kept by the Company under Section 352 of the SFO, or which were required, pursuant to the Model Code, to be notified to the Company and the Stock Exchange, were as follows:

### Long positions in shares of the Company

| Name of director | Nature of interest | Number of shares in the Company | Percentage of issued shares in the Company at 31 December 2018 |
|---|---|---|---|
| Peter Hambro | Beneficial interest | 15,330,000 | 0.22% |
| Yury Makarov | Beneficial interest | 30,911,505 | 0.44% |
| | Contingent beneficial interest* | 60,051,086 | 0.85%^ |
| Raymond Kar Tung Woo | Beneficial interest | 7,435,360 | 0.10% |
| Danila Kotlyarov | Contingent beneficial interest* | 60,051,086 | 0.85%^ |
| Chi Kin Cheng | Contingent beneficial interest** | 60,000,000 | 0.85%^ |

* The interest relates to the share options granted by the Company on 20 November 2015 and on 29 September 2017. Details of the share option scheme are set out on page 138 of the 2018 Annual Report of the Company under the heading "SHARE-BASED PAYMENTS TRANSACTIONS".

** The interest relates to the share options granted by the Company on 30 December 2016. Details of the share options are set out on page 132 of the 2018 Annual Report of the Company under the heading "SHARE CAPITAL".

^ These percentages are calculated on the basis of 7,093,386,381 Shares in issue as at 31 December 2018.

### Long positions in shares of an associated corporation

As at 31 December 2018, Peter Hambro, Non-Executive Director, and Yury Makarov, Executive Director, beneficially hold 20,450,395 shares and 75,278 shares of Petropavlovsk PLC ("Petropavlovsk") respectively. Petropavlovsk, through its wholly-owned subsidiary Cayiron Limited, is a substantial shareholder of the Company, and accordingly an associated corporation of the Company.

## DIRECTORS' INTERESTS IN COMPETING BUSINESSES

Except as described below, none of the Directors of the Company or their respective associates was interested in, apart from the Group's businesses, any business which competes or is likely to compete, either directly or indirectly, with the businesses of the Group.

Petropavlovsk, a substantial shareholder of the Company, and its subsidiaries (the "Petropavlovsk Group") are principally engaged in the exploration, development and production of precious metal deposits in Russia. The Directors do not consider Petropavlovsk to be a competitor of the Company because Petropavlovsk focuses on different commodities to the Company.

## DIRECTORS' INTERESTS IN CONTRACTS

No Director had a material interest, either directly or indirectly, in any contract of significance to the business of the Group to which the Company or any of its subsidiaries was a party during the year ended 31 December 2018.

## APPOINTMENT OF INDEPENDENT NON-EXECUTIVE DIRECTORS

The Company has received, from each of the independent non-executive directors, an annual confirmation of his independence pursuant to Rule 3.13 of the Listing Rules. The Company considers all of the independent non-executive directors are independent.

## SUBSTANTIAL SHAREHOLDERS' AND OTHER PERSONS' INTERESTS

So far as is known to any Director or chief executive of the Company, as at 31 December 2018, the Company's shareholders (other than Directors or chief executives of the Company) who had interests or short positions in the shares or underlying shares of the Company which would fall to be disclosed to the Company under the provisions of Divisions 2 and 3 of Part XV of the SFO, or which were recorded in the register required to be kept by the Company as under Section 336 of the SFO were as follows:

| Name of director | Capacity | Number of shares in the Company | Percentage of issued shares in the Company as at 31 December 2018 |
|---|---|---|---|
| Petropavlovsk PLC | Interest of a controlled corporation | 2,205,900,000 | 31.10% |
| Cayiron Limited* | Beneficial interest | 2,205,900,000* | 31.10% |

* Cayiron Limited is a wholly owned subsidiary of Petropavlovsk PLC. All 2,205,900,000 shares were pledged as at 31 December 2018. Please refer to the section "Guarantee" on page 73 for details.

Save as disclosed above and those disclosed under "Directors' Interests", the Company had not been notified of other interests representing 5% or more of the issued share capital of the Company as at 31 December 2018.

## PURCHASE, SALE OR REDEMPTION OF THE COMPANY'S LISTED SECURITIES

During the year, neither the Company nor any of its subsidiaries has purchased, sold or redeemed any of the Company's listed securities. As at 31 December 2018, the Company had not been notified of any short positions being held by any substantial shareholder in shares or underlying shares of the Company, which are required to be recorded in the register required to be kept under Section 336 of Part XV of the Securities and Futures Ordinance.

## CONTINUING CONNECTED TRANSACTIONS

Pursuant to Chapter 14A of the Listing Rules, the following non-exempt continuing connected transactions require disclosure in the annual report of the Company:

| US$'000 Continuing connected transactions | | Connected Persons | Cap for 2018 | Actual amount for 2018 |
|---|---|---|---|---|
| A | Shared Services Agreement | Petropavlovsk and/or its subsidiaries | 2,035 | 81 |
| B | Technical Services Agreement | Petropavlovsk and/or its subsidiaries | 4,500 | 80 |
| C | Helicopter Lease Agreement | Petropavlovsk and/or its subsidiaries | 1,000 | 335 |
| D | Helicopter Services Agreement | Petropavlovsk and/or its subsidiaries | 2,000 | — |
| E | Equipment Leasing Framework Agreement | Petropavlovsk and/or its subsidiaries | 3,500 | — |
| | | | 13,035 | 496 |

The actual amount of these transactions did not exceed the respective caps.

The connected transactions described in items A to E concern transactions between the Group and Petropavlovsk. Petropavlovsk, through its wholly-owned subsidiary Cayiron Limited, is a substantial shareholder of the Company and therefore a connected person pursuant to Listing Rule 14A.11(1). Furthermore, Petropavlovsk's subsidiaries are also connected persons of the Company as they are associates of Petropavlovsk. Accordingly, transactions between the Group and Petropavlovsk, and between the Group and Petropavlovsk's subsidiaries, are connected transactions for the purpose of Chapter 14A of the Listing Rules.

### A. Shared Services Agreement

The Group procures certain services from Petropavlovsk, and provides certain services to Petropavlovsk ("Shared Services"). On 29 September 2010, the Company and Petropavlovsk entered into an agreement in respect of Shared Services (the "Shared Services Agreement") for a term of three years. The Shared Services Agreement is intended to provide an overarching framework for provision of the shared services. The Shared Services comprise: (i) shared office space; (ii) legal services; (iii) management and information technology services; (iv) administrative services and (v) an equipment lease. Except for (v) an equipment lease, which is charged on arm's length terms, all other services are recharged on a "cost plus a markup of 10%" basis.

On 21 December 2012, the Shared Services Agreement was renewed for a term of three years commencing from 1 January 2013 and ending on 31 December 2015 (the "Renewed Shared Services Agreement"). On 5 February 2016, the Shared Services Agreement was renewed for a further term of three years commencing from 1 January 2016 and ending on 31 December 2018 (the "Further Renewed Shared Services Agreement"). Apart from changes made to update the effective period of renewal, all other terms and conditions of the Shared Services Agreement remain the same.

The annual cap under the Further Renewed Shared Services Agreement for the years ended 31 December 2016, 31 December 2017 and 31 December 2018 is US$2,035,000 respectively, which is the same annual cap for the three years ended 31 December 2013, 31 December 2014 and 31 December 2015 under the Renewed Shared Services Agreement. The annual cap amounts have been determined based on historical transaction figures and the Group's planned operations over the next three years, with a buffer to provide flexibility for any increase in shared services required by the Group or any increase in the base cost of providing such services.

### B. Technical Services Agreement

On 29 September 2010, the Group and Petropavlovsk entered into a technical services agreement (the "Technical Services Agreement") for a term of three years. The Technical Services Agreement provides an overarching agreement which governs Petropavlovsk's provision of technical services to the Group. The technical services comprise: (i) construction services; (ii) engineering & design services and (iii) exploration & geological services. The technical services were recharged on a "cost plus 10% markup" basis.

On 21 December 2012, the Technical Services Agreement was renewed for a term of three years commencing from 1 January 2013 and ending on 31 December 2015 (the "Renewed Technical Services Agreement"). On 5 February 2016, the Technical Services Agreement was renewed for a further term of three years commencing from 1 January 2016 and ending on 31 December 2018 (the "Further Renewed Technical Services Agreement"). Apart from changes made to update the effective period of renewal, all other terms and conditions of the Technical Services Agreement remain the same.

The annual cap under the Further Renewed Technical Services Agreement for the years ended 31 December 2016, 31 December 2017 and 31 December 2018 is US$4,500,000 respectively, which is less than the annual cap for the three years ended 31 December 2013, 31 December 2014 and 31 December 2015 under the Renewed Technical Services Agreement. The reduction in the annual cap amounts under the Further Renewed Technical Services Agreement has been determined based on historical transaction figures and the Group's planned operations over the three year period. As the Kuranakh Project has been moved to a care and maintenance status and the K&S Project has commenced production, the Group is of the view that the reduced annual cap amounts will be sufficient. The annual cap amounts, however, include a buffer to provide flexibility for any increase in technical services required by the Group or any increase in the base cost of providing such services.

## C. Helicopter Lease Agreement

LLC GMMC, a subsidiary of the Company, provides MC Petropavlovsk with helicopter services pursuant to a helicopter lease agreement ("Helicopter Lease Agreement") dated 29 September 2010. Under the Helicopter Lease Agreement, LLC GMMC leases its helicopter to MC Petropavlovsk for use in Petropavlovsk's operations. MC Petropavlovsk is a subsidiary of Petropavlovsk and therefore is a connected person of the Company for the purposes of Chapter 14A of the Listing Rules. Although the Petropavlovsk Group has its own helicopters, it is still necessary to lease helicopter from the Group because at various times its helicopters may be under repair and maintenance. This arrangement provides the Petropavlovsk Group with continuous access to a helicopter service. The terms and conditions of the Helicopter Lease Agreement are no more favourable to MC Petropavlovsk than those that would be offered to independent third parties. The Helicopter Lease Agreement has been amended and varied pursuant to a deed of variation to ensure compliance with Chapter 14A of the Listing Rules and, under the terms of the amended agreement, the amount charged to MC Petropavlovsk is calculated on the total cost, including amortisation and overheads plus a margin of 10%, attributable to actual flight time.

Before the expiry of the Helicopter Lease Agreement on 8 October 2013, the Helicopter Lease Agreement was renewed on 16 January 2013 for a term of three years commencing from 1 January 2013 and ending on 31 December 2015 (the "Renewed Helicopter Lease Agreement"). On 5 February 2016, the Helicopter Lease Agreement was renewed for a further term of three years commencing from 1 January 2016 and ending on 31 December 2018 (the "Further Renewed Helicopter Lease Agreement"). Apart from changes made to update the effective period of renewal, all other terms and conditions of the Helicopter Lease Agreement remain the same.

The annual cap under the Further Renewed Helicopter Lease Agreement for the years ended 31 December 2016, 31 December 2017, and 31 December 2018 is US$1,000,000 respectively, which is the same annual cap for the three years ended 31 December 2013, 31 December 2014, and 31 December 2015 under the Renewed Helicopter Lease Agreement. The annual cap amounts have been determined based on historical transaction figures and MC Petropavlovsk's expected demand for helicopter services for the next three years, as advised to the Company by MC Petropavlovsk.

## D. Helicopter Services Agreement

On 29 September 2010, the Group and MC Petropavlovsk entered into an agreement relating to the provision of helicopter services ("Helicopter Services Agreement"). Under the agreement, MC Petropavlovsk provides the Group with the use of its helicopter, which is critical for the Group's business due to the distances between the Group's assets and offices. The reason the Group procures a helicopter service from MC Petropavlovsk is to ensure that it has continuous access to a helicopter service. This will be relevant where the Group's own helicopter is under repair and maintenance, or where the Group's personnel require an extended service. MC Petropavlovsk recharges the Group for total cost, including amortisation and overheads plus a margin of 10%, attributable to actual flight time.

Before the expiry of the Helicopter Services Agreement on 8 October 2013, the Helicopter Services Agreement was renewed on 16 January 2013 for a term of three years commencing from 1 January 2013 and ending on 31 December 2015 (the "Renewed Helicopter Services Agreement"). On 5 February 2016, the Helicopter Services Agreement was renewed for a further term of three years commencing from 1 January 2016 and ending on 31 December 2018 (the "Further Renewed Helicopter Services Agreement"). Apart from changes made to update the effective period of renewal, all other terms and conditions of the Helicopter Services Agreement remain the same.

The annual cap under the Further Renewed Helicopter Services Agreement for the years ended 31 December 2016 and 31 December 2017 and 31 December 2018 is US$2,000,000 respectively, which is the same annual cap for the three years ended 31 December 2013, 31 December 2014 and 31 December 2015 under the Renewed Helicopter Services Agreement. The annual cap amounts have been determined based on historical transaction figures and the Group's expected requirements for helicopter services over the next three years, having regard to the Group's planned activities in areas that are only accessible by helicopter.

### E. Equipment Leasing Framework Agreement

On 20 November 2015, IRC entered into the Equipment Leasing Framework Agreement with Petropavlovsk to lease certain mining equipment owned by the Group to the Petropavlovsk Group, under which the relevant Group Company and the relevant Petropavlovsk Group Company will enter into separate leasing agreements for the relevant equipment in accordance with the principal terms set out in the Equipment Leasing Framework Agreement. With the Kuranakh mine having been moved to care and maintenance, and the K&S mine appointing an external mining contractor, certain mining equipment owned by the Group are currently underutilised and certain subsidiaries of IRC have leased mining equipment to certain subsidiaries of Petropavlovsk. Petropavlovsk wishes to lease equipment from the Group due to the proximity of the Group's operations with certain of Petropavlovsk's operations. As compared to other potential lessors of equipment, leasing equipment from the Group would result in a faster delivery time to site of the leased equipment for Petropavlovsk. The Equipment Leasing Framework Agreement represents an additional source of revenue for the Group through the leasing of underutilised equipment, and will improve the Group's cash flows.

The leasing fees payable by the relevant Petropavlovsk Group Company under each leasing agreement shall be determined by arm's length negotiations between the relevant Group Company and the relevant Petropavlovsk Group Company and (a) if a prevailing market price is available for the relevant mining equipment, the leasing fee shall be the prevailing market price. The prevailing market price of the comparable mining equipment will be determined based on information available to the Group and the Petropavlovsk Group after enquiries with third party mining equipment leasing companies with reference to availability in the location required by the relevant Petropavlovsk Group Company and the type, age and condition of the mining equipment; and (b) if a prevailing market price for the relevant mining equipment is not available, the leasing fee shall be the total cost of the mining equipment attributable to the Group, including depreciation, amortisation and overheads, plus a margin of approximately 10 per cent. The amount of margin will be determined with reference to the type, age and condition of the mining equipment.

The Group and Petropavlovsk have agreed that the aggregate leasing fees payable by Petropavlovsk to the Group under all leasing agreements entered into pursuant to the Equipment Leasing Framework Agreement will not exceed US$875,000 for the period 1 October 2015 to 31 December 2015; US$3,500,000 for each of the two years ending 31 December 2016 and 31 December 2017 respectively; and US$2,625,000 for the period 1 January 2018 to 30 September 2018. The Annual Caps have been calculated based on the historical equipment leasing needs of the Petropavlovsk Group and its anticipated needs over the term of the Equipment Leasing Framework Agreements; the anticipated needs of the Group for mining equipment and availability of mining equipment for leasing to the Petropavlovsk Group; and a buffer amount to cater for unexpected leasing needs and foreign exchange movements between the Rouble and US dollars.

Each Continuing Connected Transaction has been reviewed by the Directors, including the Independent Non-executive Directors. The Directors confirm that the Continuing Connected Transactions set out above have been entered into:

— in the ordinary and usual course of business of the Group;

— on normal commercial terms or better; and

— according to the agreement governing them on terms that are fair and reasonable and in the interests of the shareholders of the Company as a whole.

Pursuant to Rule 14A.56 of the Listing Rules, the Company has engaged the auditor of the Company to perform certain work in accordance with Hong Kong Standard on Assurance Engagements 3000 "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" and with reference to Practice Note 740 "Auditor's Letter on Continuing Connected Transactions under the Hong Kong Listing Rules" issued by the Hong Kong Institute of Certified Public Accountants (the "HKICPA").

The auditor has provided a letter to the board of directors of the Company and confirmed that for the year ended 31 December 2018 the Continuing Connected Transactions (i) have received the approval of the board of directors of the Company; (ii) are in accordance with the pricing policies of the Company for those Transactions that involve provision of goods or services by the Group; (iii) have been entered into in accordance with the relevant agreement governing the transactions and (iv) have not exceeded their respective annual caps.

The Directors confirm that the Company has complied with the disclosure requirements in accordance with Chapter 14A of the Listing Rules.

Petropavlovsk is connected parties of the Group and transactions with these entities during the year ended 31 December 2018 are set out in note 34, Related Party Disclosures, to the consolidated financial statements.

## EMOLUMENT POLICY

Details of the Directors' emoluments and of the five highest paid individuals in the Group are set out in note 13 to the consolidated financial statements. The emolument policy of the employees of the Group is set up by the Remuneration and/or Executive Committees on the basis of their merit, qualifications and competence.

The emoluments payable to Directors depend on their respective contractual terms under their employment contracts or service contracts as approved by the board of directors of the Company on the recommendation of the Remuneration Committee, having regard to the Company's operating results, individual performance and comparable market statistics.

Detailed remuneration policy and practices of IRC in 2018 are set out in the Corporate Governance Report on page 53 under the heading "Remuneration Committee".

The key element of senior management remuneration is the Share Option Scheme, which is designed to align the interests of management with those of shareholders, and to incentivise performance. Please refer to the paragraph "Remuneration Committee" in the Corporate Governance Report on page 58 and Note 28 to the consolidated financial statements under "Share-Based Payments" for more details.

## MAJOR CUSTOMERS AND SUPPLIERS

The aggregate sales attributable to the Group's three largest customers accounted for 99.4% of the total revenue for the year. The largest of them accounted for 44.1% of the total revenue. Also, the aggregate purchases attributable to the Group's three largest suppliers taken together represented 64% of the Group's total purchases for the year. The largest supplier represented 33% of the Group's total purchases for the year.

None of the Directors, their associates or any shareholder (which to the knowledge of the Directors owns more than 5% of the Company's share capital) has any interest in the Group's three largest suppliers or customers.

## GUARANTEE

The Group obtained a banking facility of US$340,000,000 from ICBC which is guaranteed by Petropavlovsk, the substantial shareholder of the Company. The project finance facility agreement contains certain covenants on Petropavlovsk, the details of which are set out in Note 34 to the consolidated financial statements. ICBC has agreed to waive the obligations of the Group and Petropavlovsk to comply with certain financial covenants and to waive the Group's obligations to maintain certain cash deposits with ICBC. In consideration for the waivers, Cayiron Limited (a wholly-owned subsidiary of Petropavlovsk PLC) pledged all of its 2,205,900,000 ordinary shares (approximately 31.10% of the total issued share capital of the Company as at 31 December 2018) in the issued capital of the Company to ICBC as security for its obligations as guarantor under the ICBC project finance facility for so long as the waivers remain in place.

In March 2019, the ICBC loan and the bridge loans from Petropavlovsk were fully repaid by utilising the proceeds from the two Gazprombank facilities for an aggregate amount of US$240 million. The Gazprombank Facilities are conditional on certain conditions precedent, including Petropavlovsk, a substantial shareholder of the Company, guaranteeing K&S's obligations under the Gazprombank Facilities and, in this respect, Petropavlovsk entered into five guarantee agreements with Gazprombank on 15 February 2019 (the "Guarantee Agreements"). The effectiveness of the Guarantee Agreements, in accordance with their respective terms, is conditional on the approval of Petropavlovsk's shareholders obtained at a general meeting. The general meeting of Petropavlovsk's shareholders was held on 12 March 2019 and the Guarantee Agreements were approved.

## CORPORATE GOVERNANCE

The Company is committed to maintaining a high standard of corporate governance practices. Information on the corporate governance practices adopted by the Company is set out in the Corporate Governance Report on page 49 of this annual report.

## SUFFICIENCY OF PUBLIC FLOAT

Based on the information that is publicly available to the Company and within the knowledge of the Directors, as at the date of this report, the Company has maintained a sufficient public float as required under the Listing Rules.

## AUDITOR

During the year, Messrs. Deloitte Touche Tohmatsu was appointed as the auditor of the Company. A resolution to appoint the auditor of the Company will be proposed at the forthcoming Annual General Meeting. There has been no change in auditor in the preceding 3 years.

## REVIEW BY THE AUDIT COMMITTEE

The audited financial statements have been reviewed by the Audit Committee of the Company, which comprises three Independent Non-executive Directors: Chuang-fei Li, Daniel Rochfort Bradshaw and Jonathan Eric Martin Smith. Chuang-fei Li is the Chairman of the Audit Committee.

On behalf of the Board

**Peter Hambro**
*Chairman*

29 March 2019

# BOARD OF DIRECTORS AND SENIOR MANAGEMENT

***As at the date of this report, the Board composes of the following directors with a collective expertise covering the resource sector and complementary industries, in addition to deep experience in the geographical regions where IRC operated. The Board formally meets at least four times a year. In addition, numerous sub-committee meetings, information events and director training sessions are held, including site visits to IRC's operations and regional offices. The strategic leadership of IRC is the responsibility of a unitary and balanced board, which comprises a healthy composition of Executive Directors, Non-Executive Directors and independent Non-Executive Directors.***

## NON-EXECUTIVE CHAIRMAN

**Peter Charles Percival Hambro**
*Chairman*

Mr. Hambro, 74, is the Chairman, Non-Executive Director and Chairman of Nomination Committee of IRC. He was an Executive Director and the Chairman of Petropavlovsk PLC for 23 years until June 2017. Mr Hambro was a Director of a number of public companies listed on the London Stock Exchange from 1973 to 2017 and has spent more than 35 years in the metals business. He was the Deputy Managing Director of London-based bullion trader, Mocatta and Goldsmid Limited, and served on the Mocatta Group Executive Committee. He is the Chairman of Peter Hambro Limited and founded Peter Hambro Mining PLC, now renamed Petropavlovsk PLC, with Dr Pavel Maslovskiy. Mr Hambro is also a Director of a number of unlisted family companies.

## EXECUTIVE DIRECTORS

**Yury Makarov**
*Chief Executive Officer*

Mr Makarov, 44, is the Chief Executive Officer and Executive Director. He began his career at NT Computers as an engineer, and later Commercial Director, with responsibility for sales, service and support. In 2002, he joined Aricom as COO and subsequently Petropavlovsk as the Group Head of Industrial Commodity Operations, before taking up his current role at IRC in 2010. Mr Makarov is a qualified systems engineer with a MA in Avionics from the Moscow State Aircraft Technology Institute.

**Danila Kotlyarov**
*Chief Financial Officer*

Mr Kotlyarov, 40, is the Chief Financial Officer and Executive Director. Mr Kotlyarov joined the Group in 2005 responsible over Russian and China operations, and was promoted to Deputy CEO in 2010 and redesignated as CFO in January 2016. Before joining IRC, he gained extensive financial management work experience in various international companies. He holds a BA in Management from Moscow State University and a MA in International Economics from the Moscow State Institute of International Relations. He is a fellow member of the ACCA, CFA charter holder and has professional diploma in civil and industrial construction.

## INDEPENDENT NON-EXECUTIVE DIRECTORS

**Daniel Rochfort Bradshaw**
*Deputy Chairman*

Mr Bradshaw, 72, is the Deputy Chairman, Senior Independent Non-Executive Director and Chairman of the Health, Safety and Environment Committee of IRC. A Hong Kong lawyer with a specialist shipping practice, he has worked for most of his career as a solicitor at Mayer Brown JSM. Mr Bradshaw holds an LLB and LLM in Law. He is a Director of The Hong Kong Club, a Director of the Kadoorie Farm & Botanic Garden Corporation, a Non-Executive Director of Euronav N.V., an Independent Non-Executive Director of Pacific Basin Shipping Limited, an Independent Non-Executive Director of GasLog MLP, and a member of the Executive Council of the World Wide Fund for Nature Hong Kong.

**Jonathan Martin Smith**

Mr Smith, 60, is an Independent Non-Executive Director and Chairman of the Remuneration Committee. He is a partner of the specialist mining advisory firm Legacy Hill Capital. He was the founder of London based Smith's Corporate Advisory, which he sold to UK stockbroker Westhouse Holdings in 2010, where he subsequently headed the mining practice. Prior to establishing his own firm, he worked at UBS, Credit Suisse and Williams de Broe. He is a graduate from the Royal Military Academy Sandhurst where he served as an officer in the Welsh Guards until 1982. In January 2019 he became an Independent Non-Executive Director and Chairman of the Audit Committee of VI Mining plc.

**Chuang-fei Li**

Mr Li, 72, is an Independent Non-Executive Director and Chairman of the Audit Committee. Mr Li worked for Bank of China in London as the Deputy General Manager and the Chief Lending Officer with wide responsibilities, including investment and corporate banking, treasury and capital markets, financial institutions coverage, structured finance, aircraft and shipping finance, syndications, retail banking and auditing. Mr Li is a past Fellow of the Asia Centre at Harvard University.

**Simon Murray**
*CBE, Chevalier de la Légion d'honneur*

Mr Murray, 79, is an Independent Non-Executive Director of IRC. Mr Murray brings considerable Hong Kong and Asia based experience to the Board, from a career spanning Jardine Matheson, Hutchison Whampoa as the Group Managing Director, Executive Chairman, Asia Pacific of the Deutsche Bank Group and his current position as Chairman of GEMS Limited. Mr Murray is currently the Non-Executive Director of China LNG Group Limited and Greenheart Group Limited, and the Independent Non-Executive Director of Wing Tai Properties and Spring Asset Management Limited (the manager of Spring REIT), all of which are listed in Hong Kong.

**Raymond Kar Tung Woo**

Mr Woo, 49, was redesignated as an Independent Non-Executive Director of IRC on 5 January 2018. Mr Woo began his career at Arthur Andersen, then an investment banker at ING, CITIC Securities and Credit Suisse. He holds a Bachelor of Commerce from The University of New South Wales and is a member of the Australian Society of Certified Practising Accountants and a fellow of the HKICPA. He is currently the Independent Non-Executive Director of Yuanda China and SMIT Holdings. Before being redesignated as Non-Executive Director on 25 March 2015 and then as Independent Non-Executive Director on 5 January 2018, he was the Executive Director, CFO and Company Secretary of IRC.

## NON-EXECUTIVE DIRECTORS

**Patrick Chi Kin Cheng**

Mr Cheng, 50, is a director of an asset management company. He is a Certified Public Accountant of HKICPA and a fellow member of the Association of International Accountants. He has over 26 years of work experience in merger & acquisition, finance & accounting, banking, asset managements & funds operations in various industries including real estate developments, infrastructure developments, real estate investment trusts (REITS), securities investments and natural resources industries.

## EMERITUS DIRECTOR

**Dr Pavel Maslovskiy**

Dr Maslovskiy, 62, is the Co-Founder and CEO of Petropavlovsk PLC. Prior to embarking on his business career, Dr Maslovskiy was a professor at the Moscow Aircraft Technology Institute, specialising in engineering applications of the theory of plasticity, teaching metallurgy and plasticity. Dr Maslovskiy was CEO of Petropavlovsk until December 2011 when he resigned from this role to accept the appointment as a Senator of the Federation Council of Russia (the Upper House of the Russian Parliament). Dr Maslovskiy resigned as a Senator in October 2014, returning to Petropavlovsk and his role as CEO. He resigned from this position in July 2017, being reappointed as a Director and CEO of Petropavlovsk at its AGM on 29 June 2018.

## SENIOR MANAGEMENT

**Johnny Shiu Cheong Yuen**

Mr Yuen, 46, is the Company Secretary, Corporate Controller, and Authorised Representative of the Company. Mr Yuen began his career in KPMG and has over 20 years of financial management, accounting, auditing and administration experiences, including working in various senior positions of listed companies in Hong Kong. He is a fellow member of the HKICPA and a member of the ACCA. He holds a MBA from the Manchester Business School of University of Manchester.

# INDEPENDENT AUDITOR'S REPORT

Deloitte. 德勤

**TO THE MEMBERS OF IRC LIMITED**
**鐵江現貨有限公司**
*(incorporated in Hong Kong with limited liability)*

## OPINION

We have audited the consolidated financial statements of IRC Limited (the "Company") and its subsidiaries (collectively referred to as the "Group") set out on pages 81 to 157, which comprise the consolidated statement of financial position as at 31 December 2018, and the consolidated statement of profit or loss, consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2018, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") and have been properly prepared in compliance with the Hong Kong Companies Ordinance.

## BASIS FOR OPINION

We conducted our audit in accordance with Hong Kong Standards on Auditing ("HKSAs") issued by the HKICPA. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the HKICPA's Code of Ethics for Professional Accountants ("the Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

## KEY AUDIT MATTERS

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

| Key audit matter | How our audit addressed the key audit matter |
|---|---|
| ***Assessment of going concern*** | |
| We have identified the assessment of the going concern basis of accounting performed by the management of the Group as a key audit matter as it is dependent on the credit facilities disclosed in note 25 to the consolidated financial statements and the expected cash to be generated from operations to meet its financial obligations as they fall due for the following twelve months. The management of the Group has prepared a cash flow forecast which involves judgements and estimations based upon management's input of key variables and market conditions including the expected production capacity of the Kimkan and Sutara Project ("K&S Project"), iron ore prices and costs of production. The cash flow forecast has been determined using estimations of future cash flows based upon projected income and expenses of the Group and its working capital needs for the next twelve months.<br><br>As at 31 December 2018, the Group had net current liabilities of approximately US$125.2 million. As disclosed in the assessment of liquidity risk in note 33 to the consolidated financial statements, the Group has financial liabilities of US$154.1 million to be settled within one year from 31 December 2018. The Group has bank balances of US$7.6 million at 31 December 2018 and has refinanced its credit facilities as disclosed in note 25 to the consolidated financial statements.<br><br>As disclosed in note 3 to the consolidated financial statements, the management of the Group believes it has sufficient liquidity based upon the Group's credit facilities and the expected cash to be generated from operations. | Our procedures in relation to the Group's assessment of going concern included:<br><br>• Obtaining an understanding of the process over the liquidity assessment including the Group's preparation of cash flow forecasts and setting of reasonable and supportable assumptions and inputs to the model used to estimate the future cash flows for the following twelve months;<br><br>• Testing the reasonableness of the inputs and assumptions used to determine the cash flow forecast against historical performance, economic and industry indicators, publicly available information such as iron ore pricing forecasts and the Group's strategic plans;<br><br>• Reperforming the underlying calculations used in the Group's cash flow forecast and management's sensitivity testing of the inputs used;<br><br>• Challenging the key assumptions including those pertaining to revenue growth of the K&S Project and the timing of significant payments in management's forecast cash flows for the next 12 months;<br><br>• Agreeing the details of the repayment and drawdown of the Group's credit facilities to supporting documentation; and<br><br>• Assessing appropriateness of the relevant disclosure in the consolidated financial statements. |

## KEY AUDIT MATTERS (CONTINUED)

| Key audit matter | How our audit addressed the key audit matter |
|---|---|
| ***Impairment of non-financial assets*** | |
| We identified the impairment of non-financial assets as a key audit matter due to the inherent subjectivity within the estimation of the present value of the future cash flows, a key component of determining the assets' recoverable amounts. Given the significance of the carrying amount, our focus has been on the assessment of the K&S Project.<br><br>The recoverable amounts of the K&S Project have been determined based on a value-in-use calculations which includes judgements and estimations based upon management's input of key variables and market conditions including the expected production capacity of the K&S Project, ore reserve estimates, iron ore prices and costs of production. These calculations require the use of estimates of future cash flows based on projected income and expenses of the K&S project and its working capital needs over the life of the mine.<br><br>Management is also required to choose suitable discount rates in order to calculate the present values of those cash flows.<br><br>Changes in the key assumptions on which the recoverable amount of the assets are based could significantly affect the Group's assessment resulting in an impairment loss being recognised or previously recognised amount being further reversed.<br><br>As stated in note 8 to the consolidated financial statements, the Group has performed impairment assessment of the K&S Project which resulted in a reversal of previously recognised impairment charges pertaining to the K&S Project of US$90.5 million. | Our procedures in relation to the impairment of non-financial assets included:<br><br>• Obtaining an understanding of the process over the annual impairment assessment including the Group's assessment of impairment indicators, preparation of the cash flow forecasts, setting of reasonable and supportable assumptions and inputs to the models used to estimate the recoverable amount over the life of the mine;<br><br>• Testing the reasonableness of assumptions and the inputs used to determine the cash flow forecasts against historical performance, ore reserve estimate surveys, economic and industry indicators, publicly available information such as iron ore pricing forecasts and the Group's strategic plans;<br><br>• Involving our internal valuation specialists to assess the appropriateness of the discount rate used;<br><br>• Checking the underlying calculations used in the Group's assessment and performing sensitivity testing of the inputs used; and<br><br>• Evaluating the sensitivity analysis performed by the management on the inputs used to evaluate the extent of impact on the estimated future cash flows. |

## OTHER INFORMATION

The directors of the Company are responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated financial statements and our auditor's report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

## RESPONSIBILITIES OF DIRECTORS AND THOSE CHARGED WITH GOVERNANCE FOR THE CONSOLIDATED FINANCIAL STATEMENTS

The directors of the Company are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with HKFRSs issued by the HKICPA and the Hong Kong Companies Ordinance, and for such internal control as the directors determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

## AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion solely to you, as a body, in accordance with section 405 of the Hong Kong Companies Ordinance, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

## AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

As part of an audit in accordance with HKSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

## AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in the independent auditor's report is Stephen David Smart.

**Deloitte Touche Tohmatsu**
*Certified Public Accountants*
Hong Kong
29 March 2019

# CONSOLIDATED STATEMENT OF PROFIT OR LOSS

For the year ended 31 December 2018

| | NOTES | 2018 US$'000 | 2017 US$'000 |
|---|---|---|---|
| Revenue | 5 | **151,549** | 109,265 |
| Operating expenses | 7 | **(129,880)** | (91,474) |
| Depreciation and amortisation | 7 | **(21,208)** | (14,618) |
| Reversal of impairment losses | 8 | **90,483** | 129,614 |
| Other income, gains and losses | 9 | **6,811** | 2,248 |
| Allowance for financial asset measured at amortised cost | 18 | **(7,741)** | – |
| Financial expenses | 10 | **(21,679)** | (22,410) |
| Profit before taxation | | **68,335** | 112,625 |
| Income tax (expense) credit | 11 | **(130)** | 590 |
| Profit for the year | | **68,205** | 113,215 |
| Profit for the year attributable to: | | | |
| Owners of the Company | | **68,235** | 113,254 |
| Non-controlling interests | | **(30)** | (39) |
| | | **68,205** | 113,215 |
| Earnings per share (US cents) | 15 | | |
| Basic | | **0.96** | 1.60 |
| Diluted | | **0.96** | 1.60 |

# CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the year ended 31 December 2018

| | **2018** | 2017 |
|---|---|---|
| | **US$'000** | US$'000 |
| Profit for the year | **68,205** | 113,215 |
| Other comprehensive income for the year: | | |
| *Items that may be reclassified subsequently to profit or loss:* | | |
| Exchange differences on translation of foreign operations | **(1,057)** | 390 |
| Fair value loss on hedging instruments designated as cash flow hedges | **–** | (1,852) |
| | **(1,057)** | (1,462) |
| Total comprehensive income for the year | **67,148** | 111,753 |
| Total comprehensive income attributable to: | | |
| Owners of the Company | **67,411** | 111,719 |
| Non-controlling interests | **(263)** | 34 |
| | **67,148** | 111,753 |

# CONSOLIDATED STATEMENT OF FINANCIAL POSITION

At 31 December 2018

| | NOTES | 2018 US$'000 | 2017 US$'000 |
|---|---|---|---|
| **NON-CURRENT ASSETS** | | | |
| Exploration and evaluation assets | 16 | **19,497** | 19,149 |
| Property, plant and equipment | 17 | **533,446** | 459,118 |
| Inventories | 19 | **10,926** | – |
| Interest in a joint venture | | **–** | – |
| Other non-current assets | | **3,282** | 97 |
| Restricted bank deposit | 25 | **977** | 1,977 |
| Value-added tax recoverable | 22 | **–** | 2,918 |
| | | **568,128** | 483,259 |
| **CURRENT ASSETS** | | | |
| Inventories | 19 | **23,168** | 28,616 |
| Trade and other receivables | 18 | **11,027** | 25,410 |
| Time deposits | 20 | **–** | 347 |
| Bank balances | 21 | **7,637** | 8,650 |
| | | **41,832** | 63,023 |
| **TOTAL ASSETS** | | **609,960** | 546,282 |
| **CURRENT LIABILITIES** | | | |
| Trade and other payables | 22 | **(54,788)** | (33,598) |
| Income tax payable | | **(292)** | (2,638) |
| Borrowings – due within one year | 25 | **(111,954)** | (60,950) |
| Other financial liabilities | 26 | **–** | (1,852) |
| | | **(167,034)** | (99,038) |
| **NET CURRENT LIABILITIES** | | **(125,202)** | (36,015) |
| **TOTAL ASSETS LESS CURRENT LIABILITIES** | | **442,926** | 447,244 |
| **NON-CURRENT LIABILITIES** | | | |
| Deferred tax liabilities | 24 | **(3,565)** | (3,623) |
| Provision for close down and restoration costs | 27 | **(10,026)** | (14,030) |
| Construction costs payable | 22 | **(8,910)** | (16,069) |
| Borrowings – due more than one year | 25 | **(100,915)** | (162,078) |
| | | **(123,416)** | (195,800) |
| **TOTAL LIABILITIES** | | **(290,450)** | (294,838) |
| **NET ASSETS** | | **319,510** | 251,444 |

## CONSOLIDATED STATEMENT OF FINANCIAL POSITION (CONTINUED...)

At 31 December 2018

| | NOTE | 2018 US$'000 | 2017 US$'000 |
|---|---|---|---|
| **CAPITAL AND RESERVES** | | | |
| Share capital | 23 | **1,285,158** | 1,285,158 |
| Capital reserve | | **17,984** | 17,984 |
| Reserves | | **17,216** | 14,222 |
| Accumulated losses | | **(1,000,552)** | (1,065,887) |
| **EQUITY ATTRIBUTABLE TO OWNERS OF THE COMPANY** | | **319,806** | 251,477 |
| **NON-CONTROLLING INTERESTS** | | **(296)** | (33) |
| **TOTAL EQUITY** | | **319,510** | 251,444 |

The consolidated financial statements on pages 81 to 157 were approved and authorised for issue by the Board of Directors on 29 March 2019 and are signed on its behalf by:

| **Yury Makarov** | **Danila Kotlyarov** |
|---|---|
| *DIRECTOR* | *DIRECTOR* |

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2018

| | | Total attributable to owners of the Company | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Share capital | Capital reserve[a] | Share-based payment reserve | Translation reserve | Hedging reserve | Other reserve[b] | Accumulated losses | Sub-total | Non-controlling interests | Total equity |
| | US$'000 | US$'000 | US$'000 | US$'000 | US$'000 | US$'000 | US$'000 | US$'000 | US$'000 | US$'000 |
| Balance at 1 January 2017 | 1,285,158 | 17,984 | 12,675 | (22,199) | – | 19,204 | (1,179,141) | 133,681 | (67) | 133,614 |
| Profit (loss) for the year | – | – | – | – | – | – | 113,254 | 113,254 | (39) | 113,215 |
| Exchange differences on translation of foreign operations | – | – | – | 317 | – | – | – | 317 | 73 | 390 |
| Fair value loss on hedging instruments in cash flow hedges | – | – | – | – | (1,852) | – | – | (1,852) | – | (1,852) |
| Total comprehensive income (expenses) for the year | – | – | – | 317 | (1,852) | – | 113,254 | 111,719 | 34 | 111,753 |
| Share-based expense | – | – | 1,515 | – | – | – | – | 1,515 | – | 1,515 |
| Deemed contribution from a shareholder | – | – | – | – | – | 4,562 | – | 4,562 | – | 4,562 |
| Balance at 31 December 2017 | 1,285,158 | 17,984 | 14,190 | (21,882) | (1,852) | 23,766 | (1,065,887) | 251,477 | (33) | 251,444 |
| Adjustments (Note 2.3) | – | – | – | – | – | – | (2,900) | (2,900) | – | (2,900) |
| Balance at 1 January 2018 (adjusted) | 1,285,158 | 17,984 | 14,190 | (21,882) | (1,852) | 23,766 | (1,068,787) | 248,577 | (33) | 248,544 |
| Profit (loss) for the year | – | – | – | – | – | – | 68,235 | 68,235 | (30) | 68,205 |
| Exchange differences on translation of foreign operations | – | – | – | (824) | – | – | – | (824) | (233) | (1,057) |
| Total comprehensive income (expenses) for the year | – | – | – | (824) | – | – | 68,235 | 67,411 | (263) | 67,148 |
| Share-based expense | – | – | 1,966 | – | – | – | – | 1,966 | – | 1,966 |
| Recognition of fair value loss on hedging instruments in cash flow hedges | – | – | – | – | 1,852 | – | – | 1,852 | – | 1,852 |
| Balance at 31 December 2018 | 1,285,158 | 17,984 | 16,156 | (22,706) | – | 23,766 | (1,000,552) | 319,806 | (296) | 319,510 |

(a) The amounts represent deemed contribution from the then ultimate holding company of the Company for 1) certain administrative expenses and tax expenses of the Group paid by the then ultimate holding company of the Company in prior years and 2) share-based payment expenses in relation to certain employees of the Group participated in the long term incentive plan of the then ultimate holding company of the Company.

(b) The amounts arose from 1) acquisition of non-controlling interests and deemed contribution arising from the group restructuring for the Company's listing on The Stock Exchange of Hong Kong Limited, 2) transfer of share-based payment reserve upon vesting of share-based awards resulted from difference between the cost of the treasury shares and fair value at grant date of the awarded shares, 3) deemed contribution from General Nice Development Limited ("General Nice"), a shareholder of the Company, for accrued interests on outstanding capital contribution, and 4) direct expenses in relation to the right to subscribe for shares of the Company granted to Tiger Capital Fund (as defined in note 23).

# CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 31 December 2018

| | NOTES | 2018<br>US$'000 | 2017<br>US$'000 |
|---|---|---|---|
| **OPERATING ACTIVITIES** | | | |
| Net cash generated from operations | 30 | **28,924** | 21,718 |
| Income tax paid | | **(2,304)** | (154) |
| **NET CASH FROM OPERATING ACTIVITIES** | | **26,620** | 21,564 |
| **INVESTING ACTIVITIES** | | | |
| Restricted bank deposits withdrawn | | **1,000** | – |
| Purchase of property, plant and equipment and exploration and evaluation assets | | **(3,374)** | (6,784) |
| Time deposits placed | 20 | **–** | (347) |
| Time deposits withdrawn | 20 | **347** | – |
| Proceeds on disposal of property, plant and equipment | | **61** | – |
| Interest received | | **82** | 114 |
| **NET CASH USED IN INVESTING ACTIVITIES** | | **(1,884)** | (7,017) |
| **FINANCING ACTIVITIES** | | | |
| Proceeds from borrowings | | **56,842** | 27,374 |
| Repayment of borrowings | | **(65,563)** | (49,168) |
| Interest expenses paid | | **(12,957)** | (14,244) |
| Loan guarantee fee paid | | **(400)** | (1,147) |
| Waiver fee paid | | **(400)** | – |
| **NET CASH USED IN FINANCING ACTIVITIES** | | **(22,478)** | (37,185) |
| **NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS FOR THE YEAR** | | **2,258** | (22,638) |
| **CASH AND CASH EQUIVALENTS AT THE BEGINNING OF YEAR** | | **8,650** | 31,342 |
| Effect of foreign exchange rate changes | | **(3,271)** | (54) |
| **CASH AND CASH EQUIVALENTS AT THE END OF YEAR** | | **7,637** | 8,650 |

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 31 December 2018

## 1. GENERAL

IRC Limited ("the Company") is a public limited company incorporated in Hong Kong and its shares have been listed on The Stock Exchange of Hong Kong Limited (the "Stock Exchange") since 21 October 2010. The Company together with its subsidiaries are hereinafter referred to as the "Group".

The address of the registered office and principal place of business of the Company is 6H, 9 Queen's Road Central, Hong Kong. The consolidated financial statements are presented in United States Dollars ("US$"), which is also the functional currency of the Company.

The principal activity of the Company is investment holding. The Group is principally engaged in the production and development of industrial commodities products including iron ore that are used in industry across the world. The main activities of the Group are in Russia and the People's Republic of China ("PRC") and the Group predominantly serves the Russian and Chinese markets. The activities of the Company's principal subsidiaries are set out in note 35.

## 2. APPLICATION OF NEW AND AMENDMENTS TO HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs")

### New and amendments to HKFRSs that are mandatorily effective for the current year

The Group has applied the following new and amendments to HKFRSs issued by the HKICPA for the first time in the current year:

| | |
|---|---|
| HKFRS 9 | Financial Instruments |
| HKFRS 15 | Revenue from Contracts with Customers and the related Amendments |
| HK(IFRIC) – Int 22 | Foreign Currency Transactions and Advance Consideration |
| Amendments to HKFRS 2 | Classification and Measurement of Share-based Payment Transactions |
| Amendments to HKFRS 4 | Applying HKFRS 9 Financial Instruments with HKFRS 4 Insurance Contracts |
| Amendments to HKAS 28 | As part of the Annual Improvements to HKFRSs 2014–2016 Cycle |
| Amendments to HKAS 40 | Transfers of Investment Property |

Except as described below, the application of the new and amendments to HKFRSs in the current year has had no material impact on the Group's financial performance and positions for the current and prior years and/or on the disclosures set out in these consolidated financial statements.

### 2.1 HKFRS 15 Revenue from Contracts with Customers

The Group has applied HKFRS 15 for the first time in the current year. HKFRS 15 superseded HKAS 18 *Revenue*, HKAS 11 *Construction Contracts* and the related interpretations.

The Group has applied HKFRS 15 retrospectively with the cumulative effect of initially applying this standard recognised at the date of initial application, 1 January 2018. Any difference at the date of initial application is recognised in the opening accumulated losses (or other components of equity, as appropriate) and comparative information has not been restated. Furthermore, in accordance with the transition provisions in HKFRS 15, the Group has elected to apply the standard retrospectively only to contracts that are not completed at 1 January 2018. Accordingly, certain comparative information may not be comparable as comparative information was prepared under HKAS 18 *Revenue* and the related interpretations.

## 2. APPLICATION OF NEW AND AMENDMENTS TO HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") (CONTINUED)

### 2.1 HKFRS 15 Revenue from Contracts with Customers (Continued)

The Group recognises revenue from the following major sources which arise from contracts with customers:

- sales of iron ore
- delivery services
- engineering services

Information about the Group's performance obligations and the accounting policies resulting from application of HKFRS 15 are disclosed in notes 5 and 3 respectively.

***Price adjustments in case of provisionally priced sales***

The Group has provisionally priced sales in cases when the contract terms for the iron ore sales allow for a price adjustment based on the final assay of the goods received by the customers. The Group considers such provisional pricing to be a variable consideration and recognises revenue at an amount representing the Group's best estimate for the expected final consideration based on the product assays on date of dispatch. The Group applies judgement regarding likelihood of significant reversals to ensure that revenue is only recognised to the extent that it is highly probable that significant reversal will not occur. Any adjustments to the final price are recognised as revenue.

***Changes in fair value of provisionally prices sales***

In case of provisional pricing arrangements, where the period between provisional invoicing and quotational period completion is typically within 30 days, the Group re-estimates the fair value of the final sales price adjustment continually by reference to forward market prices.

Other than the above amendments, the application of HKFRS 15 has no material impact on the amounts reported set out in these consolidated financial statements.

### 2.2 HKFRS 9 Financial Instruments and the related amendments

In the current period, the Group has applied HKFRS 9 *Financial Instruments* and the related consequential amendments to other HKFRSs. HKFRS 9 introduces new requirements for 1) the classification and measurement of financial assets and financial liabilities, 2) expected credit losses ("ECL") for financial assets and 3) general hedge accounting.

The Group has applied HKFRS 9 in accordance with the transition provisions set out in HKFRS 9 i.e. applied the classification and measurement requirements (including impairment) retrospectively to instruments that have not been derecognised as at 1 January 2018 (date of initial application) and has not applied the requirements to instruments that have already been derecognised as at 1 January 2018. The difference between carrying amounts as at 31 December 2017 and the carrying amounts as at 1 January 2018 are recognised in the opening accumulated losses and other components of equity, without restating comparative information.

In addition, the Group applied the hedge accounting prospectively.

## 2. APPLICATION OF NEW AND AMENDMENTS TO HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") (CONTINUED)

### 2.2 HKFRS 9 Financial Instruments and the related amendments (Continued)

Accordingly, certain comparative information may not be comparable as comparative information was prepared under HKAS 39 *Financial Instruments: Recognition and Measurement*.

Accounting policies resulting from application of HKFRS 9 are disclosed in note 3.

***Summary of effects arising from initial application of HKFRS 9***

The table below illustrates the classification and measurement of financial assets and financial liabilities and other items subject to ECL under HKFRS 9 and HKAS 39 at the date of initial application, 1 January 2018.

*Financial assets*

| | Note | **Original measurement category under HKAS 39** | **New measurement category under HKFRS 9** | **Original carrying amount under HKAS 39** US$'000 | **New carrying amount under HKFRS 9** US$'000 |
|---|---|---|---|---|---|
| Trade receivables | | Amortised cost (loans and receivables) | FVTPL | 1,803 | 1,803 |
| Other receivables | (a) | Amortised cost (loans and receivables) | Amortised cost | 12,941 | 10,041 |
| Bank balances | | Amortised cost (loans and receivables) | Amortised cost | 8,650 | 8,650 |
| Restricted bank deposit | | Amortised cost (loans and receivables) | Amortised cost | 1,977 | 1,977 |
| Time deposits | | Amortised cost (loans and receivables) | Amortised cost | 347 | 347 |

## 2. APPLICATION OF NEW AND AMENDMENTS TO HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") (CONTINUED)

### 2.2 HKFRS 9 Financial Instruments and the related amendments (Continued)

***Summary of effects arising from initial application of HKFRS 9 (Continued)***

*Financial liabilities*

There was no change to the classification and measurement of financial liabilities.

(a) Impairment under ECL model

Loss allowances for other receivables at amortised cost are measured on 12m ECL basis and there had been no significant increase in credit risk since initial recognition, except for the interest receivable from General Nice which has been measured on a lifetime ECL basis as the Group has assessed that the credit risk had increased significantly since initial recognition.

As at 31 December 2017, the credit risk associated with General Nice has increased significantly due to adverse news about its financial status, and that General Nice was selling the Company's shares.

As a result, on adoption of HKFRS 9, a credit loss allowance of approximately US$2.9 million has been recognised against accumulated losses at 1 January 2018, and charged against the other receivables.

All loss allowances for financial assets including other receivables as at 31 December 2017 reconcile to the opening loss allowance as at 1 January 2018 is as follows:

| | **Allowance for other receivables** US$'000 |
|---|---|
| As at 31 December 2017 | – |
| Amount remeasured through opening accumulated losses | 2,900 |
| As at 1 January 2018 | 2,900 |

### 2.3 Impacts on opening consolidated statement of financial position arising from the application of all new standards

As a result of the changes in the entity's accounting policies above, the opening consolidated statement of financial position had to be restated. The following table shows the adjustments recognised for each individual line item affected.

| | **31 December 2017** US$'000 (audited) | **Impact of HKFRS 9** US$'000 | **1 January 2018** US$'000 (restated) |
|---|---|---|---|
| Trade and other receivables | 25,410 | (2,900) | 22,510 |
| Accumulated losses | (1,065,887) | (2,900) | (1,068,787) |

## 2. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") (CONTINUED)

### New and revised HKFRSs in issue but not yet effective

The Group has not early applied the following new and revised HKFRSs that have been issued but are not yet effective:

| | |
|---|---|
| HKFRS 16 | Leases[1] |
| HKFRS 17 | Insurance Contracts[3] |
| HK(IFRIC) – Int 23 | Uncertainty over Income Tax Treatments[1] |
| Amendments to HKFRS 3 | Definition of a Business[5] |
| Amendments to HKFRS 9 | Prepayment Features with Negative Compensation[1] |
| Amendments to HKFRS 10 and HKAS 28 | Sale or Contribution of Assets between an Investor and its Associate or Joint Venture[4] |
| Amendments to HKAS 1 and HKAS 8 | Definition of Material[2] |
| Amendments to HKAS 19 | Plan Amendment, Curtailment or Settlement[1] |
| Amendments to HKAS 28 | Long-term Interests in Associates and Joint Ventures[1] |
| Amendments to HKFRSs | Annual Improvements to HKFRSs 2015–2017 Cycle[1] |

1 Effective for annual periods beginning on or after 1 January 2019
2 Effective for annual periods beginning on or after 1 January 2020
3 Effective for annual periods beginning on or after 1 January 2021
4 Effective for annual periods beginning on or after a date to be determined
5 Effective for business combinations and asset acquisitions for which the acquisition date is on or after the beginning of the first annual period beginning on or after 1 January 2020

### HKFRS 16 Leases

HKFRS 16 introduces a comprehensive model for the identification of lease arrangements and accounting treatments for both lessors and lessees. HKFRS 16 will supersede HKAS 17 *Leases* and the related interpretations when it becomes effective.

HKFRS 16 distinguishes lease and service contracts on the basis of whether an identified asset is controlled by a customer. In addition, HKFRS 16 requires sales and leaseback transactions to be determined based on the requirements of HKFRS 15 as to whether the transfer of the relevant asset should be accounted as a sale. HKFRS 16 also includes requirements relating to sublease and lease modifications.

Distinctions of operating leases and finance leases are removed for lessee accounting, and is replaced by a model where a right-of-use asset and a corresponding liability have to be recognised for all leases by lessees, except for short-term leases and leases of low value assets.

The right-of-use asset is initially measured at cost and subsequently measured at cost (subject to certain exceptions) less accumulated depreciation and impairment losses, adjusted for any remeasurement of the lease liability. The lease liability is initially measured at the present value of the lease payments that are not paid at that date. Subsequently, the lease liability is adjusted for interest and lease payments, as well as the impact of lease modifications, amongst others. For the classification of cash flows, the Group currently presents operating lease payments as operating cash flows. Upon application of HKFRS 16, lease payments in relation to lease liability will be allocated into a principal and an interest portion which will be presented as financing and operating cash flows by the Group respectively.

## 2. APPLICATION OF NEW AND REVISED HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") (CONTINUED)

### HKFRS 16 Leases (Continued)

Other than certain requirements which are also applicable be lessor, HKFRS 16 substantially carries forward the lessor accounting requirements in HKAS 17, and continues to require a lessor to classify a lease either as an operating lease or a finance lease.

Furthermore, extensive disclosures are required by HKFRS 16.

As at 31 December 2018, the Group has non-cancellable operating lease commitments of US$16,900,000 as disclosed in note 31. A preliminary assessment indicates that these arrangements will meet the definition of a lease. Upon application of HKFRS 16, the Group will recognise a right-of-use asset and a corresponding liability in respect of all these leases unless they qualify for low value or short-term leases.

In addition, the Group currently considers refundable rental deposits paid of US$90,000 as rights and obligations under leases to which HKAS 17 applies. Based on the definition of lease payments under HKFRS 16, such deposits are not payments relating to the right to use the underlying assets, accordingly, the carrying amounts of such deposits may be adjusted to amortised cost. Adjustments to refundable rental deposits paid would be considered as additional lease payments and included in the carrying amount of right-of-use assets. Adjustments to refundable rental deposits received would be considered as advance lease payments.

The application of new requirements may result in changes in measurement, presentation and disclosure as indicated above. The Group intends to elect the practical expedient to apply HKFRS 16 to contracts that were previously identified as leases applying HKAS 17 and HK(IFRIC)-Int 4 Determining whether an Arrangement contains a Lease and not apply this standard to contracts that were not previously identified as containing a lease applying HKAS 17 and HK(IFRIC)-Int 4. Therefore, the Group will not reassess whether the contracts are, or contain a lease which already existed prior to the date of initial application. Furthermore, the Group intends to elect the modified retrospective approach for the application of HKFRS 16 as lessee and will recognise the cumulative effect of initial application to opening accumulated losses without restating comparative information.

Except as described above, the directors of the Company anticipate that the application of the other new and amendments to HKFRSs and interpretations will have no material impact on the Group's financial performance and positions and/or the disclosures to the consolidated financial statements of the Group in future.

## 3. SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies applied in the preparation of the consolidated financial statements are set out as below. These policies have been consistently applied to all the years presented, unless otherwise stated.

### Basis of preparation

The consolidated financial statements have been prepared in accordance with HKFRSs on the historical cost basis. Historical cost is generally based upon fair value of the consideration given in exchange for goods and services. In addition, the consolidated financial statements include applicable disclosures required by the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited and the Hong Kong Companies Ordinance.

## 3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Basis of preparation (Continued)

The consolidated financial statements have been prepared on a going concern basis. As at 31 December 2018, the Group had net current liabilities of approximately US$125.2 million (2017: US$36.0 million). The management of the Group has prepared a cash flow forecast which involves judgments and estimations based upon management's input of key variables and market conditions including the expected production capacity of the Kimkan and Sutara Project ("K&S Project"), iron ore prices and costs of production. The cash flow forecast has been determined using estimations of future cash flows based upon projected income and expenses of the Group and its working capital needs. The Group believes it has sufficient liquidity based upon the credit facilities available as at and subsequent to the end of the reporting period (see note 25), and the expected cash to be generated from operations to meet its financial obligations as they fall due for the following twelve months.

### Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities including structured entities controlled by the Company and its subsidiaries. Control is achieved when the Company:

- has power over the investee;
- is exposed, or has rights, to variable returns from its involvement with the investee; and
- has the ability to use its power to affect its returns.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above.

Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of profit or loss from the date the Group gains control until the date when the Group ceases to control the subsidiary.

Profit or loss and each item of other comprehensive income are attributed to the owners of the Company and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of the Company and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies.

All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

Non-controlling interests in subsidiaries are presented separately from the Group's equity therein, which represent present ownership interests entitling their holders to a proportionate share of net assets of the relevant subsidiaries upon liquidation.

# 3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

## Exploration and evaluation assets

***Exploration and evaluation expenditure and mineral rights acquired***

Exploration and evaluation expenditure incurred in relation to those projects where such expenditure is considered likely to be recoverable through future extraction activity or sale, or where the exploration activities have not reached a stage which permits a reasonable assessment of the existence of reserves, is capitalised and recorded on the consolidated statement of financial position within exploration and evaluation assets for mining projects at the exploration stage.

Exploration and evaluation expenditure comprise costs directly attributable to:

- Researching and analysing existing exploration data;
- Conducting geological studies, exploratory drilling and sampling;
- Examining and testing extraction and treatment methods;
- Compiling pre-feasibility and feasibility studies; and
- Costs incurred in acquiring mineral rights, the entry premiums paid to gain access to areas of interest and amounts payable to third parties to acquire interests in existing projects.

Mineral rights acquired through a business combination are capitalised separately from goodwill if the asset is separable or arises from contractual or legal rights and the fair value can be measured reliably on initial recognition. Exploration and evaluation expenditure capitalised and mining rights acquired are subsequently valued at cost less impairment. In circumstances where a project is abandoned, the cumulative capitalised costs related to the project are written off in the period when such decision is made. Exploration and evaluation expenditure capitalised and mining rights within exploration and evaluation assets are not depreciated. These assets are transferred to mine development costs within property, plant and equipment when a decision is taken to proceed with the development of the project.

***Non-mining assets***

Non-mining assets are initially valued at cost, being the purchase price and the directly attributable cost of acquisition or construction required to bring the asset to the location and condition necessary for the asset to be capable of operating in the manner intended by the Group, and are subsequently valued at cost less accumulated depreciation and impairment, if any.

***Mine development costs and mining assets***

Development expenditure incurred by or on behalf of the Group is accumulated separately for each area of interest in which economically recoverable resources have been identified. Such expenditure includes costs directly attributable to the construction of a mine and the related infrastructure. Once a development decision has been taken, the carrying amount of the exploration and evaluation expenditure in respect of the area of interest is aggregated with the development expenditure and classified under non-current assets as “mine development costs”, this includes any property, plant and equipment acquired to undertake mining activities. Mine development costs are reclassified as “mining assets” at the end of the commissioning phase, when the mine is capable of operating in the manner intended by management. Depreciation policy for mining assets are set out below under *“Depreciation”*. Mine development costs are tested for impairment as stated in ‘impairment losses of tangible assets’ section.

## 3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Exploration and evaluation assets (Continued)

***Deferred stripping cost in development phase***

In open pit operations the removal of overburden and waste materials, referred to as stripping, is required to obtain access to the ore body. Such costs when incurred during the development of the mine are deferred in the consolidated statement of financial position as part of mine development costs, and charged to the profit or loss over the life of the mine on a unit of production basis.

### Property, plant and equipment

***Deferred stripping costs in production phase***

During production phase, cost incurred in relation to stripping activity is capitalised and recorded on the consolidated statement of financial position to the extent the stripping activity improved access to ore, which is when the following conditions are satisfied:

- it is probable that the future economic benefit (improved access to the ore body) associated with the stripping activity will flow to the entity;
- the entity can identify the component of the ore body for which access has been improved; and
- the costs relating to the stripping activity associated with that component can be measured reliably.

To the extent that the benefit from the stripping activity is realised in the form of inventory produced, the Group accounts for the costs of that stripping activity in accordance with the accounting policy of inventories (see accounting policy of inventories for details).

When the costs relating to improved access to ore (i.e. a stripping activity asset) and the costs of the inventory produced are not separately identifiable, production stripping costs are allocated between the stripping activity asset and inventory using a relevant production measure (i.e. actual vs. expected volume of waste extracted).

Production stripping costs capitalised as mine development costs and are subsequently carried at cost and depreciated on a unit of production basis over the expected useful life of the identified component of the ore body that becomes more accessible as a result of the stripping activity, less any impairment losses.

***Depreciation***

Property, plant and equipment are depreciated using a units of production method or straight-line basis as set out below.

Mining assets which are plant and machineries acquired to undertake mining activities are depreciated on a straight-line basis based on estimated useful lives of 2 to 20 years. Other mining assets for which economic benefits from the asset are consumed in a pattern linked to the production level, are depreciated using a units of production method based on ore reserves, which in turn results in a depreciation charge proportional to the depletion of reserves.

Non-mining assets are depreciated on a straight-line basis based on estimated useful lives.

Mine development costs and construction in progress are not depreciated, except for that property, plant and equipment used in the development of a mine. Such property, plant and equipment are depreciated on a straight-line basis based on estimated useful lives and depreciation is capitalised as part of mine development costs.

## 3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Property, plant and equipment (Continued)

***Depreciation (Continued)***

Estimated useful lives of non-mining assets normally vary as set out below.

| | **Estimated useful life Number of years** |
|---|---|
| Buildings | 15–50 |
| Plant and machinery | 2–20 |
| Vehicles | 5–7 |
| Leasehold improvements | 2 |
| Fixtures and equipment | 2 |
| Office equipment | 2–10 |
| Computer equipment | 3–5 |

### Impairment on tangible assets

At the end of each reporting period, the Group reviews the carrying amounts of its tangible assets with finite useful lives to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss, if any. When it is not possible to estimate the recoverable amount of an individual assets, the Group estimates the recoverable amount of the cash generating unit ("CGU") to which the asset belongs.

Recoverable amount is the higher of fair value less costs of disposal and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or CGU) is reduced to its recoverable amount. The impairment loss is allocated to reduce the carrying amount of the assets on a pro-rata basis based on the carrying amount of each asset in the unit. The carrying amount of an asset is not reduced below the highest of its fair value less costs of disposal (if measurable), its value in use (if determinable) and zero. The amount of the impairment loss that would otherwise have been allocated to the asset is allocated pro rata to the other assets of the unit. An impairment loss is recognised immediately in profit or loss.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or CGU) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or CGU) in prior years. A reversal of an impairment loss is recognised immediately in profit or loss.

Details of the assumptions used when assessing the impairment of the Group's tangible assets, and the effect of those assumptions, can be found in note 8.

## 3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Provision for close down and restoration costs

Close down and restoration costs include the dismantling and demolition of infrastructure and the removal of residual materials and remediation of disturbed areas. Close down and restoration costs are provided for in the accounting period when the legal or constructive obligation arising from the related disturbance occurs, whether this occurs during the mine development or during the production phase, based on the net present value of estimated future costs. Provision for close down and restoration costs do not include any additional obligations which are expected to arise from future disturbance. The costs are estimated on the basis of a closure plan. The cost estimates are calculated annually during the life of the operation to reflect known developments and are subject to formal review at regular intervals.

The unwinding of the discount applied in establishing the net present value of provision is charged to profit or loss for the year. The unwinding of the discount is shown as a financing cost, rather than as an operating cost. Other movements in the provision for close down and restoration costs, including those resulting from new disturbance, updated cost estimates, changes to the lives of operations and revisions to discount rates are capitalised within property, plant and equipment. These costs are then depreciated over the lives of the assets to which they relate.

Where rehabilitation is conducted systematically over the life of the operation, rather than at the time of closure, provision is made for the outstanding continuous rehabilitation work at the end of each reporting period. All costs of continuous rehabilitation are charged to profit or loss as incurred.

### Financial instruments

Financial assets and financial liabilities are recognised in the consolidated statement of financial position when a group entity becomes a party to the contractual provisions of the instrument.

Financial assets and financial liabilities are initially measured at fair value except for trade receivables arising from contracts with customers which are initially measured in accordance with HKFRS 15 since 1 January 2018. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss (“FVTPL”) are recognised immediately in profit or loss.

The effective interest method is a method of calculating the amortised cost of a financial asset or financial liability and of allocating interest income and interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts and payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial asset or financial liability, or if appropriate, a shorter period to the net carrying amount on initial recognition.

Interest income which are derived from the Group’s ordinary course of business are presented as revenue.

## 3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Financial instruments (Continued)

***Financial assets***

*Classification and subsequent measurement of financial assets (upon application of HKFRS 9 in accordance with transitions in note 2)*

Financial assets that meet the following conditions are subsequently measured at amortised cost:

- the financial asset is held within a business model whose objective is to collect contractual cash flows; and
- the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

All other financial assets are subsequently measured at FVTPL.

(i) Financial assets at FVTPL

Financial assets that do not meet the criteria for being measured at amortised cost are measured at FVTPL.

Financial assets at FVTPL are measured at fair value at the end of each reporting period, with any fair value gains or losses recognised in profit or loss. The net gain or loss recognised in profit or loss excludes any interest earned on the financial asset and is included in the “Other income, gains and losses” line item.

*Impairment of financial assets (upon application HKFRS 9 with transitions in accordance with note 2)*

The Group recognises a loss allowance for ECL on financial assets which are subject to impairment under HKFRS 9 (including other receivables, restricted bank deposit, time deposits and bank balances). The amount of ECL is updated at each reporting date to reflect changes in credit risk since initial recognition.

Lifetime ECL represents the ECL that will result from all possible default events over the expected life of the relevant instrument. In contrast, 12-month ECL (“12m ECL”) represents the portion of lifetime ECL that is expected to result from default events that are possible within 12 months after the reporting date. Assessment are done based on the Group’s historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current conditions at the reporting date as well as the forecast of future conditions.

For all financial assets except for trade receivables which are measured at fair value, the Group measures the loss allowance equal to 12m ECL, unless when there has been a significant increase in credit risk since initial recognition, the Group recognises lifetime ECL. The assessment of whether lifetime ECL should be recognised is based on significant increases in the likelihood or risk of a default occurring since initial recognition.

## 3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Financial instruments (Continued)

***Financial assets (Continued)***

*Impairment of financial assets (upon application HKFRS 9 with transitions in accordance with note 2) (Continued)*

(i) Significant increase in credit risk

In assessing whether the credit risk has increased significantly since initial recognition, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition. In making this assessment, the Group considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort.

In particular, the following information is taken into account when assessing whether credit risk has increased significantly:

- an actual or expected significant deterioration in the financial instrument's external (if available) or internal credit rating;
- significant deterioration in external market indicators of credit risk, e.g. a significant increase in the credit spread, the credit default swap prices for the debtor;
- existing or forecast adverse changes in business, financial or economic conditions that are expected to cause a significant decrease in the debtor's ability to meet its debt obligations;
- an actual or expected significant deterioration in the operating results of the debtor;
- an actual or expected significant adverse change in the regulatory, economic, or technological environment of the debtor that results in a significant decrease in the debtor's ability to meet its debt obligations.

Irrespective of the outcome of the above assessment, the Group presumes that the credit risk has increased significantly since initial recognition when contractual payments are more than 30 days past due, unless the Group has reasonable and supportable information that demonstrates otherwise.

(ii) Definition of default

The Group considers that default has occurred when the instrument is more than 90 days past due unless the Group has reasonable and supportable information to demonstrate that a more lagging default criterion is more appropriate.

## 3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Financial instruments (Continued)

***Financial assets (Continued)***

*Impairment of financial assets (upon application HKFRS 9 with transitions in accordance with note 2) (Continued)*

(iii) Credit-impaired financial assets

A financial asset is credit-impaired when one or more events of default that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Evidence that a financial asset is credit – impaired includes observable data about the following events:

- significant financial difficulty of the issuer or the borrower;
- a breach of contract, such as a default or past due event;
- the lender(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider;
- it is becoming probable that the borrower will enter bankruptcy or other financial reorganisation; or
- the disappearance of an active market for that financial asset because of financial difficulties.

(iv) Write-off policy

The Group writes off a financial asset when there is information indicating that the counterparty is in severe financial difficulty and there is no realistic prospect of recovery, for example, when the counterparty has been placed under liquidation or has entered into bankruptcy proceedings. Financial assets written off may still be subject to enforcement activities under the Group's recovery procedures, taking into account legal advice where appropriate. A write-off constitutes a derecognition event. Any subsequent recoveries are recognised in profit or loss.

(v) Measurement and recognition of ECL

The measurement of ECL is a function of the probability of default, loss given default (i.e. the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss given default is based on historical data adjusted by forward-looking information. Estimation of ECL reflects an unbiased and probability-weighted amount that is determined with the respective risks of default occurring as the weights.

Generally, the ECL is the difference between all contractual cash flows that are due to the Group in accordance with the contract and the cash flows that the Group expects to receive, discounted at the effective interest rate determined at initial recognition.

Interest income is calculated based on the gross carrying amount of the financial asset unless the financial asset is credit impaired, in which case interest income is calculated based on amortised cost of the financial asset.

## 3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Financial instruments (Continued)

***Financial assets (Continued)***

*Classification and subsequent measurement of financial assets (before application of HKFRS 9 on 1 January 2018)*

Financial assets are classified into the following specified categories: financial assets at FVTPL, held-to-maturity investments, available-for-sale financial assets and loans and receivables. The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition.

(i) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Subsequent to initial recognition, loans and receivables (including trade and other receivables, bank balances, restricted bank deposit) and time deposits) are measured at amortised cost using the effective interest method, less any impairment.

Interest income is recognised by applying the effective interest rate, except for short-term receivables where the recognition of interest would be immaterial.

*Impairment of financial assets (before application of HKFRS 9 on 1 January 2018)*

Financial assets, other than those at FVTPL, are assessed for indicators of impairment at the end of each reporting period. Financial assets are considered to be impaired when there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the financial assets have been affected.

For all financial assets, objective evidence of impairment could include:

- significant financial difficulty of the issuer or counterparty; or
- breach of contract, such as a default or delinquency in interest or principal payments; or
- it becoming probable that the borrower will enter bankruptcy or financial re-organisation

Objective evidence of impairment for a portfolio of receivables could include the Group's past experience of collecting payments, an increase in the number of delayed payments in the portfolio past the average credit period of 30 days, observable changes in national or local economic conditions that correlate with default on receivables.

For financial assets carried at amortised cost, the amount of the impairment loss recognised is the difference between the asset's carrying amount and the present value of the estimated future cash flows discounted at the financial asset's original effective interest rate.

For financial assets carried at cost, the amount of the impairment loss is measured as the difference between the asset's carrying amount and the present value of the estimated future cash flows discounted at the current market rate of return for a similar financial asset. Such impairment loss will not be reversed in subsequent periods.

# 3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

## Financial instruments (Continued)

***Financial assets (Continued)***

*Impairment of financial assets (before application of HKFRS 9 on 1 January 2018) (Continued)*

The carrying amount of the financial asset is reduced by the impairment loss directly for all financial assets with the exception of trade and other receivables, where the carrying amount is reduced through the use of an allowance account. Changes in the carrying amount of the allowance account are recognised in profit or loss. When a trade and other receivable is considered uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited to profit or loss.

*Derecognition of financial assets*

The Group derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

On derecognition of a financial asset measured at amortised cost, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognised in profit or loss.

***Financial liabilities and equity***

*Classification as debt or equity*

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

*Equity instruments*

An equity instrument is any contract that evidences a residual interest in the assets of the Group after deducting all of its liabilities. Equity instruments issued by the Company are recorded at the proceeds received, net of direct issue costs.

*Financial liabilities at amortised cost*

Financial liabilities including borrowings, trade and other payables and construction costs payable are subsequently measured at amortised cost, using the effective interest method.

*Transaction costs on borrowings*

Transaction costs that are directly attributable to the raising of borrowings are recognised on the consolidated statement of financial position on an accrual basis. Such costs will be deducted from the fair value of the borrowings on initial recognition (that is, when the relevant borrowings are drawn). They form part of the borrowings and will be accounted for using an effective interest method over the loan period as discussed above.

*Derecognition of financial liabilities*

The Group derecognises financial liabilities when, and only when, the Group's obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognised and the consideration paid and payable is recognised in profit or loss.

## 3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Financial instruments (Continued)

***Hedge accounting***

The Group designates certain derivatives as hedging instruments for cash flow hedges.

At the inception of the hedging relationship the Group documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the Group documents whether the hedging instrument is highly effective in offsetting changes in fair values or cash flows of the hedged item attributable to the hedged risk.

*Assessment of hedging relationship and effectiveness (under HKFRS 9 since 1 January 2018)*

For hedge effectiveness assessment, the Group considers whether the hedging instrument is effective in offsetting changes in fair values or cash flows of the hedged item attributable to the hedged risk, which is when the hedging relationships meet all of the following hedge effectiveness requirements:

- there is an economic relationship between the hedged item and the hedging instrument;
- the effect of credit risk does not dominate the value changes that result from that economic relationship; and
- the hedge ratio of the hedging relationship is the same as that resulting from the quantity of the hedged item that the Group actually hedges and the quantity of the hedging instrument that the entity actually uses to hedge that quantity of hedged item.

If a hedging relationship ceases to meet the hedge effectiveness requirement relating to the hedge ratio but the risk management objective for that designated hedging relationship remains the same, the Group adjusts the hedge ratio of the hedging relationship (i.e. rebalances the hedge) so that it meets the qualifying criteria again.

*Assessment of hedging relationship and effectiveness (before application of HKFRS 9 on 1 January 2018)*

A hedge is regarded as highly effective only if both of the following conditions are met:

- at the inception and in subsequent periods, the hedge is expected to be highly effective; and
- the actual results of the hedge are within a range of 80 to 125 per cent.

*Cash flow hedges*

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges are recognised in other comprehensive income and accumulated under the heading of hedging reserve. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss and is included in the ‘other income, gains and losses’ line item.

Amounts previously recognised in other comprehensive income and accumulated in equity (Hedging reserve) are reclassified to profit or loss in the periods when the hedged item affects profit or loss, in the same line of the consolidated statement of profit or loss as the recognised hedged item.

## 3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Financial instruments (Continued)

***Hedge accounting (Continued)***

*Cash flow hedges (Continued)*

Hedge accounting is discontinued when the Group revokes the hedging relationship, when the hedging instrument expires or is sold, terminated, or exercised, or when it no longer qualifies for hedge accounting. Any gain or loss recognised in other comprehensive income and accumulated in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in profit or loss. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognised immediately in profit or loss.

*Discontinuation of hedge accounting (under HKFRS 9 since 1 January 2018)*

The Group discontinues hedge accounting prospectively only when the hedging relationship (or a part thereof) ceases to meet the qualifying criteria (after rebalancing, if applicable). This includes instances when the hedging instrument expires or is sold, terminated or exercised. Discontinuing hedge accounting can either affect a hedging relationship in its entirety or only a part of it (in which case hedge accounting continues for the remainder of the hedging relationship).

For cash flow hedge, any gain or loss recognised in other comprehensive income and accumulated in equity at that time remains in equity and is recognised when the forecast transactions is ultimately recognised in profit or loss. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognised immediately in profit or loss.

*Discontinuation of hedge accounting (before application of HKFRS 9 on 1 January 2018)*

Hedge accounting is discontinued when the Group revokes the hedging relationship, when the hedging instrument expires or is sold, terminated or exercised, or when it no longer qualifies for hedge accounting.

For cash flow hedge, any gain or loss recognised in other comprehensive income and accumulated in equity at that time remains in equity and is recognised when the forecast transactions is ultimately recognised in profit or loss. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognised immediately in profit or loss.

### Inventories

Inventories are stated at the lower of cost and net realisable value. Cost comprises direct materials and, where applicable, direct labour costs and those overheads that have been incurred in bringing the inventories to their present location and condition. Cost of raw materials and consumables is determined on a first-in-first-out basis. Net realisable value represents the estimated selling price less all estimated costs of completion and costs to be incurred in marketing, selling and distribution.

## 3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Revenue from contracts with customers (upon application of HKFRS 15 in accordance with transitions in note 2)

Under HKFRS 15, the Group recognises revenue when (or as) a performance obligation is satisfied, i.e. when "control" of the goods or services underlying the particular performance obligation is transferred to the customer.

A performance obligation represents a good or service (or a bundle of goods or services) that is distinct or a series of distinct goods or services that are substantially the same.

Control is transferred over time and revenue is recognised over time by reference to the progress towards complete satisfaction of the relevant performance obligation if one of the following criteria is met:

- the customer simultaneously receives and consumes the benefits provided by the Group's performance as the Group performs;
- the Group's performance creates and enhances an asset that the customer controls as the Group performs; or
- the Group's performance does not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date.

Otherwise, revenue is recognised at a point in time when the customer obtains control of the distinct good or service.

A contract asset represents the Group's right to consideration in exchange for goods or services that the Group has transferred to a customer that is not yet unconditional. It is assessed for impairment in accordance with HKFRS 9. In contrast, a receivable represents the Group's unconditional right to consideration, i.e. only the passage of time is required before payment of that consideration is due.

A contract liability represents the Group's obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer.

A contract asset and a contract liability relating to a contract are accounted for an presented on a net basis.

***Contracts with multiple performance obligations (including allocation of transaction price)***

For contracts that contain more than one performance obligations (for the sales of iron ore and shipping service), the Group allocates the transaction price to each performance obligation on a relative stand-alone selling price basis.

The stand-alone selling price of the distinct good or service underlying each performance obligation is determined at contract inception. It represents the price at which the Group would sell a promised good or service separately to a customer. If a stand-alone selling price is not directly observable, the Group estimates it using appropriate techniques such that the transaction price ultimately allocated to any performance obligation reflects the amount of consideration to which the Group expects to be entitled in exchange for transferring the promised goods or services to the customer.

## 3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Revenue from contracts with customers (upon application of HKFRS 15 in accordance with transitions in note 2) (Continued)

***Over time revenue recognition: measurement of progress towards complete satisfaction of a performance obligation***

The progress towards complete satisfaction of a performance obligation is measured based on output method, which is to recognise revenue on the basis of direct measurements of the value of the goods or services transferred to the customer to date relative to the remaining goods or services promised under the contract, that best depict the Group's performance in transferring control of goods or services.

### Revenue recognition (prior to 1 January 2018)

Revenue is measured at the fair value of the consideration received or receivable and represents amounts receivable for goods sold and services provided in the normal course of business, net of discounts.

Revenue is recognised when the amount of revenue can be reliably measured; when it is probable that future economic benefits will flow to the Group and when specific criteria have been met for each of the Group's activities, as described below.

Revenue from sale of goods is recognised when the goods are delivered and title has passed.

Interest income from a financial asset is recognised when it is probable that the economic benefits will flow to the Group and the amount of income can be measured reliably. Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts the estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

The Group's policy for the recognition of revenue from engineering contracts is described in the accounting policy on engineering contracts below.

The Group's accounting policy for recognition of revenue from operating leases is described in the accounting policy for leasing below.

### Engineering contracts

Where the outcome of a contract can be estimated reliably, revenue and costs are recognised by reference to the stage of completion of the contract activity at the end of the reporting period. The stage of completion is measured by reference to estimates of work performed to date.

Where the outcome of a contract cannot be estimated reliably, contract revenue is recognised to the extent of contract costs incurred that it is probable will be recoverable. Contract costs are recognised as expenses in the period in which they are incurred.

When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognised as an expense immediately.

For the year ended 31 December 2018

## 3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Leasing

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

***The Group as lessor***

Floor space of buildings and other assets may be leased to contractors under an operating lease, for use in the construction of mining properties.

Rental income from operating leases is recognised in profit or loss on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset.

***The Group as lessee***

Operating lease payments are recognised as an expense on a straight-line basis over the lease term.

In the event that lease incentives are received to enter into operating leases, such incentives are recognised as a liability. The aggregate benefit of incentives is recognised as a reduction of rental expense on a straight-line basis.

### Foreign currencies

In preparing the financial statements of each individual group entity, transactions in currencies other than the functional currency of that entity (foreign currencies) are recorded in the respective functional currency (i.e. the currency of the primary economic environment in which the entity operates, i.e. United States dollars) at the rates of exchange prevailing on the dates of the transactions. At the end of the reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences arising on the settlement of monetary items, and on the retranslation of monetary items, are recognised in profit or loss in the period in which they arise.

For the purposes of presenting the consolidated financial statements, the assets and liabilities of the Group's foreign operations are translated into the presentation currency of the Group (i.e. United States dollars) using exchange rates prevailing at the end of each reporting period. Income and expenses items are translated at the average exchange rates for the year, unless exchange rates fluctuate significantly during the year, in which case, the exchange rates prevailing at the dates of transactions are used. Exchange differences arising, if any, are recognised in other comprehensive income and accumulated in equity under the heading of translation reserve (attributed to non-controlling interests as appropriate).

On the disposal of a foreign operation, all of the exchange differences accumulated in equity in respect of the foreign operation attributable to the owners of the Company are reclassified to profit or loss.

## 3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

All other borrowing costs are recognised in profit or loss in the year in which they are incurred.

### Share options granted to shareholders

Where share options are granted to shareholders as part of a share subscription of the Company's shares, the components amount is recognised in hedging reserve in the equity of the Company on a pro-rata basis based on the fair values of the components on the proceeds from the share subscription.

### Taxation

Taxation expense represents the sum of the tax currently payable and deferred tax.

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit/loss before tax because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of each reporting period.

Deferred tax is recognised on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognised for all taxable temporary differences. Deferred tax assets are generally recognised for all deductible differences to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from the initial recognition of goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

When a group entity's taxable profit or tax loss is determined in a currency other than its functional currency, and consequently, the tax base of its non-monetary assets and liabilities changes in the exchange rate give rise to temporary differences that result in a recognised deferred tax liability or asset subject to the general recognition criteria. The resulting deferred tax is recognised in profit or loss.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries and interests in joint ventures, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognised to the extent that it is probable that there will be sufficient taxable profits against which to utilise the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

## 3. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

### Taxation (Continued)

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the liability is settled or the asset is realised, based on tax rate (and tax laws) that have been enacted or substantially enacted by the end of the reporting period.

The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities. Current and deferred tax are recognised in profit or loss, except when they relates to items that are recognised in other comprehensive income or directly in equity, in which case the current and deferred tax are also recognised in other comprehensive income or directly in equity respectively.

### Share-based payment arrangements

Certain employees of the Group receive equity-settled share-based payments. Equity-settled share-based payments are measured at fair value at the date of grant.

The fair value determined at the grant date of the equity-settled share-based payments is expensed on a straight-line basis over the vesting period, based on the Group's estimate of awarded shares or options that will eventually vest, adjusted for the effect of non-market-based vesting conditions, with a corresponding increase in equity (share-based payment reserve).

At the end of the reporting period, the Group revises its estimates of the number of awarded shares or options that are expected to ultimately vest. The impact of the revision of the original estimates during the vesting period, if any, is recognised in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to share-based payment reserve.

When share options are exercised, the amount previously recognised in share-based payment reserve will be transferred to share capital. When the share options are forfeited after the vesting date or are still not exercised at the expiry date, the amount previously recognised in share-based payment reserve will be transferred to accumulated losses.

### Retirement benefit costs

The Group does not operate a pension scheme. However, payments are made to defined contribution retirement benefit arrangements for certain employees and these are charged as an expense as they fall due.

## 4. KEY SOURCES OF ESTIMATION UNCERTAINTY

In the application of the Group's accounting policies, which are described in note 3, management is required to make judgement, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an on-going basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

### Impairment of assets and assessment of cash generating units

The Group reviews the carrying value of its property, plant and equipment and exploration and evaluation assets to determine whether there is any indication that those assets are impaired. In making assessments for impairment, assets that do not generate independent cash flows are allocated to an appropriate CGU. The recoverable amount of those assets, or CGU, is measured at the higher of their fair value less costs of disposal and value in use.

Management necessarily applies its judgement in estimating the probability, timing and value of underlying cash flows and in selecting appropriate discount rates to be applied within the value in use calculation.

Changes to the assumptions underlying the assessment of the recoverable value may result in changes to impairment charges, either through further impairment charges or reversal of previously recognised impairments, which could have a significant impact on the financial information in future periods. In addition, changes to iron ore prices, ore reserve estimates, production costs, capacity and increases in the total forecast cost of planned projects or negative outcomes to exploration and evaluation activities could lead to further impairment charges or reversals in the future. With the K&S Project in commercial production and improvements in the spot iron ore price in the current year, management has revisited the assessment of the recoverable amount of the K&S Project resulting in a partial reversal of the impairment charge of US$90.5 million in the consolidated statement of profit or loss for the year ended 31 December 2018 (2017: US$129.6 million).

### Ore reserve estimates

The Group estimates its ore reserves and mineral resources based on the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves of December 2004 (the "JORC Code") or Canadian Institute of Mining, Metallurgy and Petroleum) valuation standards ("CIM"). The JORC Code and CIM require the use of reasonable investment assumptions when reporting reserves, including future production estimates, expected future commodity prices and production cash costs.

Ore reserve estimates are used in the calculation of depreciation of mining assets using a units of production method, impairment charges and for forecasting the timing of the payment of closedown and restoration costs. Also, for the purpose of impairment review and the assessment of life of mine for forecasting the timing of the payment of close down and restoration costs, the Group may take into account mineral resources in addition to ore reserves where there is a high degree of confidence that such resources will be extracted.

## 4. KEY SOURCES OF ESTIMATION UNCERTAINTY (CONTINUED)

### Ore reserve estimates (Continued)

Ore reserve estimates may change from period to period as additional geological data becomes available during the course of operations or economic assumptions used to estimate reserves change. Such changes in estimated reserves may affect the Group's financial results and financial position in a number of ways, including the following:

- Asset carrying values due to changes in estimated future cash flows;

- Depreciation charged in the consolidated statement of profit or loss where such charges are determined by using a units of production method or where the useful economic lives of assets are determined with reference to the life of the mine;

- Provisions for close down and restoration costs where changes in estimated reserves affect expectations about the timing of the payment of such costs; and

- Carrying value of deferred tax assets and liabilities where changes in estimated reserves affect the carrying value of the relevant assets and liabilities.

### Exploration and evaluation costs

The Group's accounting policy for exploration and evaluation expenditure results in such expenditure being capitalised for those projects for which such expenditure is considered likely to be recoverable through future extraction activity or sale, or for which the exploration activities have not reached a stage which permits a reasonable assessment of the existence of reserves. This policy requires management to make certain estimates and assumptions as to future events and circumstances, in particular whether the Group will proceed with development based on existence of reserves or whether an economically viable extraction operation can be established. Such estimates and assumptions may change from period to period as new information becomes available. If, subsequent to the exploration and evaluation expenditure capitalised, a judgement is made that recovery of the expenditure is unlikely or the project is to be abandoned, the relevant capitalised amount will be written off to profit or loss.

### Provision for restoration, rehabilitation and environmental costs

Costs arising from site restoration works, and the decommissioning of plant, discounted to their present value, are provided for and capitalised at the start of each project, as soon as the obligation to incur such costs arises. The provision is based on estimates prepared by external consultants. Management uses its judgement and experience to provide for these costs. The ultimate costs of site restoration and decommissioning are uncertain, and cost estimates can vary in response to many factors including changes to relevant legal requirements, the emergence of new restoration techniques or experience at other mine sites. The expected timing and extent of expenditure can also change, for example in response to changes in ore reserves or processing levels. As a result, there could be significant adjustments to the provisions established which would affect future financial results.

### Deferred tax

Recognition of deferred tax assets requires management to assess the likelihood that future tax profits will be available which the deferred tax asset can be utilised to offset. This requires management to assess future tax profits of the business and the likelihood and timing of these amounts.

## 5. REVENUE

### (i) Disaggregation of revenue from contracts with customers

***For the year ended 31 December 2018***

| Segments | Mine in production US$'000 | Engineering US$'000 |
|---|---|---|
| **Types of goods or services** | | |
| Sale of iron ore concentrate | 135,075 | – |
| Delivery services | 15,923 | – |
| Engineering services | – | 551 |
| | 150,998 | 551 |
| **Geographical markets** | | |
| PRC | 83,388 | – |
| Russia | 67,610 | 551 |
| | 150,998 | 551 |
| **Timing of revenue recognition** | | |
| A point of time | 135,075 | – |
| Over time | 15,923 | 551 |
| | 150,998 | 551 |

## 5. REVENUE (CONTINUED)

### (i) Disaggregation of revenue from contracts with customers (Continued)

***For the year ended 31 December 2017***

| Segments | Mine in production US$'000 | Engineering US$'000 |
|---|---|---|
| **Types of goods or services** | | |
| Sale of iron ore concentrate | 108,212 | – |
| Engineering services | – | 1,053 |
| | 108,212 | 1,053 |
| **Geographical markets** | | |
| PRC | 98,930 | – |
| Russia | 9,282 | 1,053 |
| | 108,212 | 1,053 |

***Sale of iron ore (revenue recognised at a point of time)***

Revenue from the sale of iron ore products is recognised at a point of time when the control of the goods has been transferred to the customers, being when the iron ore has been delivered to the agreed location. Customers have to make a deposit of 90% of the invoiced amount before the delivery, and the remaining 10% is to be paid after delivery and on receipt of the final assay results based on the average market price of the month of shipment. Upon delivery of the goods, the customers have control over the usage of the products and bear the risk of loss in relation to the goods.

***Sale of iron ore with delivery service (multiple performance obligation)***

The Group provides a delivery service associated with the sale of iron ore as a performance obligation separate to the sale of goods. The Group allocates the price of the relevant sale transaction between the goods sold and the distinct performance obligations related to the delivery of the goods and recognises the corresponding revenue over the period of the performance obligation if the amount is significant. Allocation of transaction price to delivery services is based on the best estimate of a similar stand-alone service.

***Engineering services***

Revenue from provision of engineering services is recognised over time by reference to the progress towards complete satisfaction of the relevant performance obligation, as the customer simultaneously receives and consumes the benefits provided by the Group's performance as the Group performs.

All iron ore sales (including delivery service) and engineering services are for periods of a year or less. As permitted under HKFRS 15, the transaction price allocated to these unsatisfied contracts is not disclosed.

## 6. SEGMENT INFORMATION

HKFRS 8 *Operating Segments* requires the Group to disclose reportable segments in accordance with internal reports that are provided to the Group's chief operating decision maker. The Group considers its Executive Committee to be the chief operating decision maker. For management purposes, the Group is organised into four operating segments, Mines in Production, Mines in Development, Engineering, and Other. These operating segments form the basis on which the Group's Executive Committee makes decisions about resource allocation and performance assessment. No operating segments identified by the Group's Executive Committee have been aggregated in arriving at the reportable segments of the Group. The Group has four operating and reportable segments under HKFRS 8:

- Mines in Production segment ("Mines in Production"), comprises an iron ore project in production phase. This segment includes the K&S Project which is located in the Russia Far East Region started commercial production in January 2017 and so was transferred from the Mines in Development Segment to Mines in Production during the year ended 31 December 2017.

- Mines in Development segment ("Mines in Development"), comprises iron ore projects in the exploration and development phase. This segment includes the Garinskoye project and the Bolshoi Seym project which are all located in the Russia Far East region.

- Engineering segment ("Engineering"), comprises in-house engineering and scientific expertise related to Giproruda, which is located in Russia.

- Other segment ("Other") primarily includes the Group's interests in a joint venture for the production of vanadium pentoxides and related products in the PRC.

The accounting policies of the operating segments are the same as the Group's accounting policies described in note 3. Segment results represent the results generated by each segment without the allocation of general administration expenses, general depreciation, other income, gains and losses, financial income and financial expenses.

Segment results represent the results incurred by each segment for the purpose of monitoring segment performance.

For the purposes of monitoring segment performance and allocating resources between segments:

- all assets are allocated to reportable segments other than central cash and cash equivalents; and

- all liabilities are allocated to reportable segments other than deferred tax and borrowings.

The following is an analysis of the Group's revenue and results by separable and reportable segment.

For the year ended 31 December 2018

## 6. SEGMENT INFORMATION (CONTINUED)
### For the year ended 31 December 2018

| | Mines in production US$'000 | Mines in development US$'000 | Engineering US$'000 | Other US$'000 | Total US$'000 |
|---|---|---|---|---|---|
| **Revenue** | | | | | |
| External sales | 150,998 | – | 551 | – | 151,549 |
| Segment revenue | 150,998 | – | 551 | – | 151,549 |
| Site operating expenses and service costs | (138,891) | (320) | (1,431) | (11) | (140,653) |
| *Site operating expenses and service costs include:* | | | | | |
| Depreciation and amortisation | (20,862) | (196) | (141) | – | (21,199) |
| Reversal of impairment losses | 90,483 | – | – | – | 90,483 |
| Segment profit (loss) | 102,590 | (320) | (880) | (11) | 101,379 |
| General administration expenses | | | | | (10,426) |
| General depreciation | | | | | (9) |
| Other income, gains and losses | | | | | 6,811 |
| Allowance for financial asset measured at amortised cost | | | | | (7,741) |
| Financial expenses | | | | | (21,679) |
| Profit before taxation | | | | | 68,335 |
| Other segment information | | | | | |
| Additions to non-current assets: | | | | | |
| Capital expenditure on property, plant and equipment | 469 | 5,268 | 2 | 10 | 5,749 |
| Exploration and evaluation expenditure capitalised | – | 348 | – | – | 348 |
| Segment assets | 575,881 | 24,293 | 4,598 | 495 | 605,267 |
| Central cash and cash equivalents | | | | | 4,693 |
| Consolidated assets | | | | | 609,960 |
| Segment liabilities | (58,053) | (681) | (334) | (14,948) | (74,016) |
| Borrowings | | | | | (212,869) |
| Deferred tax liabilities | | | | | (3,565) |
| Consolidated liabilities | | | | | (290,450) |

## 6. SEGMENT INFORMATION (CONTINUED)

### For the year ended 31 December 2017

| | Mines in production US$'000 | Mines in development US$'000 | Engineering US$'000 | Other US$'000 | Total US$'000 |
|---|---|---|---|---|---|
| **Revenue** | | | | | |
| External sales | 108,212 | – | 1,053 | – | 109,265 |
| Segment revenue | 108,212 | – | 1,053 | – | 109,265 |
| Site operating expenses and service costs | (94,478) | (364) | (1,367) | (12) | (96,221) |
| *Site operating expenses and service costs include:* | | | | | |
| Depreciation and amortisation | (14,161) | (266) | (152) | – | (14,579) |
| Reversal of impairment losses | 129,614 | – | – | – | 129,614 |
| Segment profit (loss) | 143,348 | (364) | (314) | (12) | 142,658 |
| General administration expenses | | | | | (9,832) |
| General depreciation | | | | | (39) |
| Other income, gains and losses | | | | | 2,248 |
| Financial expenses | | | | | (22,410) |
| Profit before taxation | | | | | 112,625 |
| Other segment information | | | | | |
| Additions to non-current assets: | | | | | |
| Capital expenditure on property, plant and equipment | 10,232 | – | – | 7 | 10,239 |
| Exploration and evaluation expenditure capitalised | – | 293 | – | – | 293 |
| Segment assets | 496,140 | 27,941 | 5,720 | 11,855 | 541,656 |
| Central cash and cash equivalents | | | | | 4,626 |
| Consolidated assets | | | | | 546,282 |
| Segment liabilities | (54,892) | (651) | (273) | (12,371) | (68,187) |
| Borrowings | | | | | (223,028) |
| Deferred tax liabilities | | | | | (3,623) |
| Consolidated liabilities | | | | | (294,838) |

## 6. SEGMENT INFORMATION (CONTINUED)

### Non-current assets by location of asset

The Group's non-current assets, excluding financial assets, are substantially located in Russia.

### Information about major customers

Revenue from customers contributing over 10% of the total sales of the Group are as follows:

| | **2018** **US$'000** | 2017 US$'000 |
|---|---|---|
| EVRAZ Group | **66,801** | – |
| Heilongjiang Xianglong International Trading Corporation Limited | **62,470** | 60,090 |
| Suifenhe Fangda Internatioanl Trade Co., Ltd. | **21,387** | 16,223 |
| Minmetals Luobei International Trading Co., Ltd. | **–** | 16,909 |

## 7. OPERATING EXPENSES

| | **2018** **US$'000** | 2017 US$'000 |
|---|---|---|
| Site operating expenses and service costs[(a)] | **140,653** | 96,221 |
| General administration expenses[(b)] | **10,435** | 9,871 |
| | **151,088** | 106,092 |

### (a) Site operating expenses and service costs

| | **2018** **US$'000** | 2017 US$'000 |
|---|---|---|
| Subcontracted mining costs and engineering services | **35,595** | 19,921 |
| Railway tariffs | **33,659** | 20,966 |
| Depreciation and amortisation | **21,199** | 14,579 |
| Staff costs | **19,222** | 16,405 |
| Materials usage | **11,779** | 8,368 |
| Electricity | **7,848** | 7,440 |
| Property tax | **6,650** | 6,266 |
| Other expenses | **3,791** | 4,284 |
| Rental fee | **3,433** | 2,741 |
| Fuel | **2,287** | 1,591 |

## 7. OPERATING EXPENSES (CONTINUED)

### (a) Site operating expenses and service costs (Continued)

| | 2018 US$'000 | 2017 US$'000 |
|---|---|---|
| Professional fees* | **645** | 590 |
| Office costs | **350** | 408 |
| Insurance | **189** | 191 |
| Bank charges | **96** | 93 |
| Business travel expenses | **53** | 53 |
| Royalties | **–** | 7 |
| Allowance for bad debts | **–** | 6 |
| Movement in finished goods and work in progress | **(4,064)** | (5,545) |
| Mine development costs capitalised in property, plant and equipment | **(2,079)** | (2,143) |
| | **140,653** | 96,221 |

### (b) General administration expenses

| | 2018 US$'000 | 2017 US$'000 |
|---|---|---|
| Staff costs other than share-based payments | **4,802** | 5,281 |
| Share-based payments | **1,966** | 1,515 |
| Professional fees* | **2,255** | 1,384 |
| Business travel expenses | **385** | 428 |
| Office rent | **351** | 422 |
| Office costs | **303** | 265 |
| Other expenses | **150** | 179 |
| Bank charges | **122** | 163 |
| Insurance | **91** | 148 |
| Utilities and other expenses | **–** | 46 |
| Depreciation | **9** | 39 |
| Property tax | **1** | 1 |
| | **10,435** | 9,871 |

* Professional fees comprise audit fees, legal fees, consulting fees, management services fees and engineering consultancy fees.

## 8. REVERSAL OF IMPAIRMENT LOSSES

The Group follows the requirements of HKAS 36 *Impairment of Assets* to consider whether there are impairment indicators and if so, to determine whether the non-financial assets are impaired. At the end of each reporting period, the management assesses whether there is any indication that the impairment loss recognised in prior periods for an asset other than goodwill may no longer exist or may have decreased. If any such indication exists, the management is required to estimate the recoverable amount of the asset which requires significant judgment. In making this judgment, management considers factors including changes in the cash costs of production, available ore reserves, purity of the iron ore concentrates, forecasted iron and ilmenite prices and exchange rates.

With the continued improvements in K&S Project's production and in the spot iron ore price in the current year, management has revisited the assessment of the recoverable amount of the K&S Project resulting in a reversal of the impairment charge of US$90.5 million in the consolidated statement of profit or loss for the year ended 31 December 2018 (2017: US$129.6 million).

The recoverable amount of the K&S Project has been determined based on value-in-use calculations. These calculations require the use of estimates of future cash flows based on projected income and expenses of the business and working capital needs that have taking into consideration the future economic conditions, expected production capacity, ore reserve estimates, iron ore prices and cost of production over the expected life of the mine. Management is also required to choose suitable discount rates in order to calculate the present values of the cash flows. The discount rate used was 12% (2017: 12%). Changes in the key assumptions on which the recoverable amounts of the assets are based could significantly affect management's assessment.

As at 31 December 2018, the recoverable amount of the property, plant and equipment of the K&S Project is approximately US$524.8 million.

## 9. OTHER INCOME, GAINS AND LOSSES

| | **2018**<br>**US$'000** | 2017<br>US$'000 |
|---|---|---|
| Net foreign exchange gain (loss) | **4,553** | (857) |
| Net gain on disposal of property, plant and equipment | **508** | 539 |
| Interest income on cash and cash equivalents | **79** | 109 |
| Rental income | **1,034** | 2,535 |
| Others | **637** | (78) |
| | **6,811** | 2,248 |

## 10. FINANCIAL EXPENSES

| | 2018<br>US$'000 | 2017<br>US$'000 |
|---|---|---|
| Interest expense on borrowings | **19,182** | 20,211 |
| Unwinding of discount on environmental obligation and long-term construction costs payable | **2,497** | 2,199 |
| | **21,679** | 22,410 |

## 11. INCOME TAX (EXPENSE) CREDIT

| | 2018<br>US$'000 | 2017<br>US$'000 |
|---|---|---|
| Current: | | |
| Russian Corporate tax | **(30)** | (2,313) |
| Hong Kong Profits tax | **(25)** | – |
| | **(55)** | (2,313) |
| Deferred tax (expense) credit (note 24) | **(75)** | 2,903 |
| | **(130)** | 590 |

Russian Corporate tax is calculated at a rate of 20% of the estimated assessable profit for both years.

Based on the approved federal and regional laws in Russia, the K&S Project is considered to be an investment project and is eligible for income tax relief over 10 years starting from 2016. The K&S Project is exempted from Russian Corporate tax for the period from 2016 to 2021 and will be taxed at a reduced rate of 10% for the following 5 years increasing to 20% thereafter.

Hong Kong Profits tax is calculated at 16.5% of the estimated assessable profit for both years.

For the year ended 31 December 2018

## 11. INCOME TAX EXPENSE (CREDIT) (CONTINUED)

No tax from other jurisdictions has been recognised as the Group had no assessable profit arising in or derived from any other jurisdictions during both years. The (credit) charge for the year can be reconciled to profit before taxation per the consolidated statement of profit or loss as follows.

| | **2018** | 2017 |
|---|---|---|
| | **US$'000** | US$'000 |
| Profit before taxation | **68,335** | 112,625 |
| Tax at the Russian corporation tax rate of 20%[(a)] | **13,667** | 22,525 |
| Effect of different tax rates of subsidiaries' operations in other jurisdictions | **3,122** | 594 |
| Tax effect of tax losses not recognised | **5,910** | 4,090 |
| Tax effect of utilisation of tax losses previously not recognised | **(883)** | (1,766) |
| Tax effect arising from exchange adjustments on non-monetary assets | **965** | (4,806) |
| Tax effect of income that is not taxable in determining taxable profit | **(19,755)** | (15,402) |
| Tax effect of income under tax exemption | **(7,370)** | (10,523) |
| Tax effect of expenses that are not deductible in determining taxable profit | **4,474** | 4,698 |
| Income tax expense (credit) for the year | **130** | (590) |

(a) The Group's major operating subsidiaries are all located in Russia and subject to Russian Corporate tax. Accordingly, Russian Corporate tax rate is applied for tax reconciliation purposes.

## 12. AUDITORS' REMUNERATION

The analysis of auditors' remuneration is as follows:

| | **2018** | 2017 |
|---|---|---|
| | **US$'000** | US$'000 |
| Audit fees | | |
| Fees payable to Group's auditors and their associates for the annual audit of the Group's consolidated financial statements | **510** | 456 |
| Non-audit fees | | |
| Other services | **–** | 30 |
| Total | **510** | 486 |

## 13. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS

The aggregate remuneration of employees (including directors) comprised:

| | **2018** | 2017 |
|---|---|---|
| | **US$'000** | US$'000 |
| Wages and salaries | **17,748** | 16,690 |
| Social security and other benefits | **6,117** | 4,850 |
| Retirement benefit contributions | **159** | 146 |
| Share-based payments | **1,966** | 1,515 |
| | **25,990** | 23,201 |

| | **2018** | 2017 |
|---|---|---|
| | **US$'000** | US$'000 |
| Directors' emoluments | | |
| Emoluments for executive directors: | | |
| – salaries and other benefits | **1,320** | 1,211 |
| – retirement benefit contributions | **91** | 82 |
| – share-based payments | **550** | 384 |
| Emoluments for non-executive directors: | | |
| – directors' fees | **875** | 768 |
| – retirement benefit contributions | **23** | 23 |
| – share-based payments | **275** | 192 |
| | **3,134** | 2,660 |

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED...)

For the year ended 31 December 2018

## 13. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS (CONTINUED)

| | Directors' fees US$'000 | Salaries and other benefits US$'000 | 2018 Retirement benefit contributions US$'000 | Share-based payments[g] US$'000 | Total US$'000 |
|---|---|---|---|---|---|
| Executive directors: | | | | | |
| Yury Makarov | – | 708[i] | 89 | 275 | 1,072 |
| Danila Kotlyarov | – | 612[j] | 2 | 275 | 889 |
| Non-executive directors: | | | | | |
| *Non-executive directors* | | | | | |
| Peter Charles Percival Hambro[a][k] | 42 | – | – | – | 42 |
| George Jay Hambro[b] | 185[h] | – | 23 | 275 | 483 |
| Cheng Chi Kin[f] | 90 | – | – | – | 90 |
| Cai Sui Xin[d] | – | – | – | – | – |
| Benjamin Ng[c] | – | – | – | – | – |
| *Independent non-executive directors* | | | | | |
| Daniel Bradshaw | 126 | – | – | – | 126 |
| Jonathan Martin Smith[k] | 126 | – | – | – | 126 |
| Chuang-fei Li | 126 | – | – | – | 126 |
| Simon Murray | 90 | – | – | – | 90 |
| Raymond Woo[e] | 90 | – | – | – | 90 |
| | 875 | 1,320 | 114 | 825 | 3,134 |

| | Directors' fees US$'000 | Salaries and other benefits US$'000 | 2017 Retirement benefit contributions US$'000 | Share-based payments[g] US$'000 | Total US$'000 |
|---|---|---|---|---|---|
| Executive directors: | | | | | |
| Yury Makarov | – | 642[i] | 80 | 192 | 914 |
| Danila Kotlyarov | – | 569[j] | 2 | 192 | 763 |
| Non-executive directors: | | | | | |
| *Non-executive directors* | | | | | |
| George Jay Hambro[b] | 181[h] | – | 23 | 192 | 396 |
| Cheng Chi Kin[f] | 76 | – | – | – | 76 |
| Cai Sui Xin[d] | – | – | – | – | – |
| Raymond Woo[e] | 83 | – | – | – | 83 |
| *Independent non-executive directors* | | | | | |
| Daniel Bradshaw | 115 | – | – | – | 115 |
| Jonathan Martin Smith[k] | 115 | – | – | – | 115 |
| Chuang-fei Li | 115 | – | – | – | 115 |
| Simon Murray | 83 | – | – | – | 83 |
| | 768 | 1,211 | 105 | 576 | 2,660 |

## 13. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS (CONTINUED)

Notes:

(a) Appointed as non-executive director on 26 July 2018

(b) Resigned as non-executive director on 19 December 2018

(c) Appointed as non-executive director on 5 January 2018 and retired on 25 June 2018

(d) Resigned as non-executive director on 5 January 2018

(e) Re-designated as independent non-executive director on 5 January 2018

(f) Appointed as non-executive director on 3 February 2017

(g) The share-based payments were recognised in accordance with the accounting policies set out in note 3 and for further details, please refer to note 28.

(h) Included in directors' fees was US$98,000 (2017: US$98,000) and retirement benefit contributions of US$23,000 (2017: US$23,000) paid to a service company which is an affiliated company of the director.

(i) Included in salaries was US$34,000 (2017: US$36,000) paid by subsidiaries.

(j) Included in salaries was nil (2017: US$6,000) paid by subsidiaries.

(k) Director's fee was paid to an independent service company which is classed as an affiliated company to the director.

The executive directors' emoluments shown above were for their services in connection with the management of the affairs of the Company and the Group.

The non-executive directors' emoluments shown above were for their services as directors of the Company or its subsidiaries.

The independent non-executive directors' emoluments shown above were for their services as directors of the Company.

Mr. Yury Makarov and Mr. Danila Kotlyarov are also the Chief Executive and the Chief Financial Officer of the Company respectively and their emoluments disclosed above include those for services rendered by them as the Chief Executive and the Chief Financial Officer.

## 13. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS (CONTINUED)

### Five highest paid individuals

For the year ended 31 December 2018, the five highest paid individuals included three directors of the Company (2017: three directors of the Company). The emoluments of the remaining highest paid individuals for the years ended 31 December 2018 and 2017 are as follows:

| | **2018 US$'000** | 2017 US$'000 |
|---|---|---|
| Employees | | |
| – salaries and other benefits | **484** | 471 |
| – share-based payments | **184** | 138 |
| | **668** | 609 |

| | **2018 Number of individuals** | 2017 Number of individuals |
|---|---|---|
| Their emoluments were within the following bands: | | |
| HK$1,500,001 to HK$2,000,000 (equivalent to approximately US$192,308 to US$256,410) | **1** | – |
| HK$2,000,001 to HK$2,500,000 (equivalent to approximately US$256,411 to US$320,513) | **–** | 1 |
| HK$2,500,001 to HK$3,000,000 (equivalent to approximately US$320,514 to US$384,615) | **–** | 1 |
| HK$3,000,001 to HK$3,500,000 (equivalent to approximately US$384,615 to US$448,718) | **1** | – |
| | **2** | 2 |

In both years, no emoluments were paid by the Group to the directors or the five highest paid individuals as an inducement to join or upon joining the Group. None of the directors waived or agreed to waive any emoluments and no other amounts were paid by the Group to the directors, or the five highest paid individuals, as compensation for loss of office during the year.

During the year, certain directors and employees were granted share options, in respect of their services to the Group under share option scheme of the Company. Details of the share option scheme are set out in note 28 to the Group's consolidated financial statements.

## 14. DIVIDENDS

No dividends were paid, declared or proposed to the owners of the Company during both years ended 31 December 2018 and 2017, nor has any dividend been proposed since the end of the reporting period.

## 15. EARNINGS PER SHARE

The calculation of the basic and diluted earnings per share attributable to owners of the Company is based on the following data:

### Profit for the year

| | **2018** | 2017 |
|---|---|---|
| | **US$'000** | US$'000 |
| Profit for the purposes of basic and diluted earnings per ordinary share being profit for the year attributable to owners of the Company | **68,235** | 113,254 |

### Number of shares

| | **2018** | 2017 |
|---|---|---|
| | **Number** | Number |
| | **'000** | '000 |
| Weighted average number of ordinary shares for the purpose of basic and diluted earnings per share | **7,093,386** | 7,093,386 |

The computation of diluted earnings per share for the years ended 31 December 2018 and 2017 does not assume the exercise of share options granted by the Group because the exercise price of those options was higher than the average market price for the Company's shares.

## 16. EXPLORATION AND EVALUATION ASSETS

| | **2018** | 2017 |
|---|---|---|
| | **US$'000** | US$'000 |
| At the beginning of the year | **19,149** | 18,856 |
| Additions | **348** | 293 |
| At the end of the year | **19,497** | 19,149 |

Garinskoye and Bolshoi Seym Deposit are classified as exploration and evaluation assets. Additions mainly related to capitalised costs incurred on exploration and evaluation activities.

## 17. PROPERTY, PLANT AND EQUIPMENT

| | Mine development costs US$'000 | Mining assets US$'000 | Non-mining assets US$'000 | Construction in progress US$'000 | Total US$'000 |
|---|---|---|---|---|---|
| **COST** | | | | | |
| At 1 January 2017 | 1,144,646 | 119,220 | 51,906 | 117,844 | 1,433,616 |
| Additions | 5,116 | 5,116 | 7 | – | 10,239 |
| Transfers | (771,766) | 882,398 | (8,340) | (102,292) | – |
| Disposals | (21) | (4,115) | (431) | – | (4,567) |
| Exchange adjustments | – | – | 295 | – | 295 |
| At 31 December 2017 | 377,975 | 1,002,619 | 43,437 | 15,552 | 1,439,583 |
| Additions | 5,268 | 469 | 12 | – | 5,749 |
| Transfers | 2,208 | (24,050) | 21,842 | – | – |
| Disposals | (1,006) | (19,111) | (874) | (1,100) | (22,091) |
| Exchange adjustments | – | – | (969) | – | (969) |
| At 31 December 2018 | 384,445 | 959,927 | 63,448 | 14,452 | 1,422,272 |
| **ACCUMULATED DEPRECIATION AND IMPAIRMENT** | | | | | |
| At 1 January 2017 | (930,488) | (119,220) | (34,717) | (15,501) | (1,099,926) |
| Depreciation charge for the year | – | (13,905) | (713) | – | (14,618) |
| Transfer | 572,306 | (572,306) | – | – | – |
| Impairment loss reversed in profit or loss | – | 129,614 | – | – | 129,614 |
| Eliminated on disposals | 21 | 4,115 | 431 | – | 4,567 |
| Exchange adjustments | – | – | (102) | – | (102) |
| At 31 December 2017 | (358,161) | (571,702) | (35,101) | (15,501) | (980,465) |
| Depreciation charge for the year | – | (19,424) | (1,784) | – | (21,208) |
| Impairment loss reversed in profit or loss, net | (88) | 90,622 | – | (51) | 90,483 |
| Eliminated on disposals | 997 | 19,100 | 874 | 1,100 | 22,071 |
| Exchange adjustments | – | – | 293 | – | 293 |
| At 31 December 2018 | (357,252) | (481,404) | (35,718) | (14,452) | (888,826) |
| **CARRYING AMOUNTS** | | | | | |
| At 31 December 2018 | 27,193 | 478,523 | 27,730 | – | 533,446 |
| At 31 December 2017 | 19,814 | 430,917 | 8,336 | 51 | 459,118 |

At 31 December 2018 and 2017, the Group did not have any material contractual commitments for the acquisition of property, plant and equipment.

## 18. TRADE AND OTHER RECEIVABLES

| | 2018<br>US$'000 | 2017<br>US$'000 |
|---|---|---|
| Trade receivables | **2,227** | 1,803 |
| Value-added tax recoverable | **3,762** | 8,063 |
| Prepayments to suppliers | **2,867** | 2,603 |
| Amounts due from customers under engineering contracts | **204** | 167 |
| Other debtors | **1,967** | 12,774 |
| | **11,027** | 25,410 |

Amounts due from customers under long-term engineering contracts in progress are expected to be billed and settled within one year.

Trade receivables are amounts owed from iron ore concentrate sales and services performed under engineering contracts.

At 31 December 2017, other debtors included interest receivable from General Nice of US$11.3 million. As a result of a winding-up order made against General Nice by the High Court of Hong Kong on 16 July 2018, the Group recognised an allowance of US$7.5 million charged to profit or loss. Due to the significant increase in the credit risk associated with General Nice, the interest receivable has been fully written off as at 31 December 2018 (2017: Nil). The Company is considering courses of action available to it in light of the winding-up order.

Except for trade receivables measured at FVTPL, the Group applies the simplified approach in accordance to HKFRS 9 to measure ECL which used a lifetime ECL, the directors of the Company considered that the lifetime ECL allowance is insignificant as at 31 December 2018.

Below is an aged analysis of the Group's trade receivables based on invoice date at the end of the reporting period.

| | 2018<br>US$'000 | 2017<br>US$'000 |
|---|---|---|
| Less than one month | **2,222** | 1,791 |
| One month to three months | **5** | 1 |
| Three months to six months | **–** | – |
| Over six months | **–** | 11 |
| Total | **2,227** | 1,803 |

The Group allows credit period of 5 to 30 days (2017: 10 days to 53 days) to individual third party customers. The directors of the Company considered that the carrying value of trade and other receivables is approximately equal to their fair value.

## 18. TRADE AND OTHER RECEIVABLES (CONTINUED)

As at 31 December 2018, there are no trade receivables which are past due as at the reporting date. As at 31 December 2017, 99% of the trade receivables that are neither past due nor impaired are considered to be of good credit quality based on their settlement history.

The Group has a concentration of credit risk at 31 December 2018 as 91.4% (31 December 2017: 93.5%) of the total trade receivables was due from the Group's largest customer. The Group has implemented policies that require appropriate credit checks on potential customers before granting credit. The Group has adopted a policy of only dealing with creditworthy counterparties and minimising its risk by receiving substantial upfront payments. The Group's exposure and credit ratings of its counterparties are monitored closely by management. The maximum credit risk of such financial assets is represented by the carrying value of the asset.

In determining recoverability of a trade receivable, the Group considers any change in the credit quality of the trade receivable from the date credit was initially granted up to the end of the reporting period. No impairment is necessary for these balances which are not past due.

There are no trade receivables past due but not impaired as at 31 December 2018. Below is an aged analysis of trade receivables based on invoice date which are past due but not impaired as at 31 December 2017:

| | 2017<br>US$'000 |
|---|---|
| Three months to six months | – |
| Over six months | 11 |
| Total | 11 |

The Group has not provided for impairment loss on trade receivables which were past due as there has not been a significant change in the credit quality and amounts were considered recoverable based on historical experience.

The following shows an analysis of movements in the allowance for doubtful debts in respect of trade and other receivables as at 31 December 2017:

| | 2017<br>US$'000 |
|---|---|
| At the beginning of the year | 143 |
| Amounts written off as uncollectible | (113) |
| Exchange adjustments | 1 |
| At the end of the year | 31 |

As at 31 December 2017, included in the allowance for doubtful debts were impaired trade receivables of US$31,000. The amount at 31 December 2017 mainly represented impairment for non-trade debtors who were in severe financial difficulties and the probability for them to settle the receivable was considered to be remote. The Group did not hold any collateral over these balances.

Details of impairment assessment of other receivable for the year ended 31 December 2018 are set out in note 33.

## 19. INVENTORIES

| | 2018 US$'000 | 2017 US$'000 |
|---|---|---|
| **Current** | | |
| Stores and spares | **10,485** | 9,187 |
| Work in progress | **10,992** | 16,811 |
| Ore in stockpiles | **1,691** | 2,618 |
| | **23,168** | 28,616 |

| | 2018 US$'000 | 2017 US$'000 |
|---|---|---|
| **Non-current** | | |
| Ore in stockpiles (note) | **10,926** | – |

Note: Ore in stockpiles that is not planned to be processed within twelve months after the reporting period is shown as non-current.

No inventories had been pledged as security during the years ended 31 December 2018 and 2017.

No inventories were written down or recovered to its net realisable value during the year ended 31 December 2018 (2017: work in progress, finished goods and spare parts were recovered by US$2,784,000 and ore stockpiles, fuel, raw and other materials were written down by US$4,006,000 to its estimated net realisable value). Recovery of the inventories in the prior year is due to subsequent sales of inventories previously written down.

The cost of inventory, excluding use of ore in stockpiles, charged to the consolidated statement of profit or loss and included in site operating expenses and service costs was approximately US$11,716,000 for the year ended 31 December 2018 (2017: US$7,799,000).

## 20. TIME DEPOSITS

As at 31 December 2017, the Group had short-term US Dollars denominated bank deposits with an original maturity of three to twelve months and bore interest at prevailing market rates that ranged from 7% to 7.3% per annum. The Group did not have time deposits as at 31 December 2018.

## 21. BANK BALANCES

Bank balances comprised cash and short-term bank deposits with an original maturity of three months or less. The carrying amount of these assets approximates their fair value. Cash at banks carry interest at prevailing market rates ranging from 0.55% to 6.15% (2017: 0.44% to 10.2%) per annum for the year ended 31 December 2018.

## 22. TRADE AND OTHER PAYABLES

| | 2018<br>US$'000 | 2017<br>US$'000 |
|---|---|---|
| Trade payables | **8,188** | 4,369 |
| Advances from customers | **229** | 62 |
| Interest payables | **339** | 359 |
| Construction costs payable | **22,092** | 20,531 |
| Accruals and other payables | **32,850** | 24,346 |
| | **63,698** | 49,667 |
| Presented as: | | |
| Current liabilities | **54,788** | 33,598 |
| Non-current liabilities | **8,910** | 16,069 |
| | **63,698** | 49,667 |

The average credit period on purchases of goods and services for the year was 11 days (2017: 27 days).

The directors of the Company consider that the carrying amount of trade creditors and other payables approximates their fair value.

Below is an aged analysis of the Group's trade payables based on invoice date:

| | 2018<br>US$'000 | 2017<br>US$'000 |
|---|---|---|
| Less than one month | **6,058** | 3,361 |
| One month to three months | **1,922** | 854 |
| Over three months to six months | **131** | 8 |
| Over six months | **77** | 146 |
| Total | **8,188** | 4,369 |

Construction cost payables are amounts owed arising from the Engineering Procurement and Construction Contract entered into between the Group and China National Electric Engineering Corporation ("CNEEC") on 6 December 2010 and the additional agreement signed on 27 December 2016 for the development of the K&S Project. The Group is pursuing CNEEC for penalty claims pertaining to the delay in completion of the infrastructure works of the K&S Project amounting to US$27.6 million (the "Delay Penalties").

As at 31 December 2018, the Group owes CNEEC a final payment of US$26.6 million against which US$3.9 million has been partially offset against the Delay Penalties, the remaining US$22.7 million has been measured at amortised cost at an effective interest rate of 8.16% per annum for 2018 and 2017.

Construction costs payable to CNEEC of US$8,910,000 contractually due twelve months after the reporting date has been recorded as a non-current liability.

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## 23. SHARE CAPITAL

Details of the allotment and issuance of ordinary shares by the Company during the years ended 31 December 2018 and 2017 are as follows:

| | Number of shares | Share capital US$'000 |
|---|---|---|
| **Issued and fully paid** | | |
| Ordinary shares of HK$1.41 each At 31 December 2017 and 2018 | 7,093,386,381 | 1,285,158 |

On 30 November 2016, the Company entered into a subscription agreement with an investor, Tiger Capital Fund SPC – Tiger Global SP ("Tiger Capital Fund"), pursuant to which Tiger Capital Fund agreed to subscribe for 937,500,000 new ordinary shares of the Company at the subscription price of HK$0.21 per share. As part of the consideration for the subscription, the Company has also agreed to grant to Tiger Capital Fund a right to subscribe for a maximum of 60,000,000 new ordinary shares ("Option Share(s)") of the Company. The subscription and the grant of the Option Shares were subject to shareholders' approval by way of an ordinary resolution which was passed on 29 December 2016. Accordingly, 937,500,000 ordinary shares were allotted and issued, as well as 60,000,000 Option Shares were granted, to Tiger Capital Fund on 30 December 2016 (the "Completion Date") for a total net proceeds of approximately US$25.4 million.

The 60,000,000 Option Shares granted were assigned to a director of Tiger Capital Fund, pursuant to the nomination by Tiger Capital Fund. The first tranche of 30,000,000 Option Shares has an exercise price of HK$0.3575, representing a premium of 10% to the closing price of HK$0.325 on the Completion Date. Following the completion of the first tranche of the Option Shares subscription, the exercise price for the second tranche of the remaining 30,000,000 Option Shares was set at a price being 110% of the closing price for a share of the Company on the first anniversary of the Completion Date.

The Option Shares are valid for a period of 5 years from the date of grant and have been fully vested in 2017.

At 31 December 2018, the Option Shares granted to Tiger Capital Fund remained outstanding. No Option Shares granted were exercised or lapsed during the year ended 31 December 2018.

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## 24. DEFERRED TAX LIABILITIES

The following are the major deferred tax (liabilities) assets recognised by the Group and movements thereon during the year.

| | Property, plant and equipment US$'000 | Engineering contracts US$'000 | Tax losses US$'000 | Foreign exchange movements US$'000 | Other temporary differences US$'000 | Total US$'000 |
|---|---|---|---|---|---|---|
| At 1 January 2017 | (741) | 94 | 51,224 | (56,881) | (182) | (6,486) |
| Credit (charge) to profit or loss | 27 | (72) | (1,945) | 4,806 | 87 | 2,903 |
| Exchange adjustments | (39) | 4 | – | – | (5) | (40) |
| At 31 December 2017 | (753) | 26 | 49,279 | (52,075) | (100) | (3,623) |
| Credit (charge) to profit or loss | 25 | 28 | (1,113) | 965 | 19 | (75) |
| Exchange adjustments | 126 | (7) | – | – | 15 | 133 |
| At 31 December 2018 | (602) | 47 | 48,166 | (51,110) | (66) | (3,565) |

At 31 December 2018 and 2017, the Group had unused tax losses of US$357 million and US$380 million respectively.

On 30 November 2016, an amendment to the Russian Tax Code was enacted that, effective from 1 January 2017 (i) the limitation regarding the utilisation of loss carry forwards up to 50% of taxable profit in the tax period will expire beginning in 2021; and (ii) the current 10-year carry forward period for losses will be eliminated, hence, it will be possible to fully utilise loss carry forwards against the corporate tax base in a given year from 2021 onwards. Further losses incurred from 2007 can be carried forward for an indefinite period until fully utilised.

In relation to these unused tax losses, deferred tax assets of US$1,113,000 have been utilised in 2018 in respect of US$123 million of unused tax losses and US$1,945,000 have been recognised in 2017 in respect of US$140 million of unused tax losses. No deferred tax asset has been recognised in respect of the remaining tax losses of US$234 million (2017: US$240 million) due to the unpredictability of future taxable profit streams.

At 31 December 2018, the Group had deductible temporary difference of US$25.6 million, in respect of temporary differences arising on the sale of iron ores and certain costs capitalised within “mine development costs” of property, plant and equipment when they were under development in prior years (2017: US$25.1 million). No deferred tax asset has been recognised in respect of these deductible temporary differences due to the unpredictability of future taxable profit streams.

The Group did not record a deferred tax liability in respect of withholding tax that would be payable on the unremitted earnings associated with investments in its subsidiaries as the Group is able to control the timing of the reversal of those temporary differences and did not intend to reverse them in the foreseeable future. These subsidiaries are incorporated in Russia and subject to the Russian Corporate tax rate of 20%. Unremitted earnings that would be subject to withholding tax amount to US$2.1 million (2017: US$3.6 million) at 31 December 2018.

Temporary differences arising from the Group’s interests in a joint venture are insignificant.

## 25. BORROWINGS

| | 2018<br>US$'000 | 2017<br>US$'000 |
|---|---|---|
| Bank loans | | |
| Industrial and Commercial Bank of China ("ICBC") | **158,777** | 221,578 |
| Sberbank of Russia PJSC | **–** | 1,450 |
| | **158,777** | 223,028 |
| Other loans | | |
| EPC – Finance LLC | **63** | – |
| CJSC Pokrovskiy Rudnik | **54,029** | – |
| | **54,092** | – |
| Total | **212,869** | 223,028 |
| Secured | **158,777** | 223,028 |
| Unsecured | **54,092** | – |
| | **212,869** | 223,028 |
| Carrying amounts repayable | | |
| Within one year | **111,954** | 60,950 |
| More than one year, but not exceeding two years | **44,886** | 55,344 |
| More than two years, but not exceeding five years | **56,029** | 106,734 |
| Total | **212,869** | 223,028 |
| Presented as: | | |
| Current liabilities | **111,954** | 60,950 |
| Non-current liabilities | **100,915** | 162,078 |
| | **212,869** | 223,028 |

### Bank loan from ICBC

The Group entered into a project finance facility agreement with ICBC (the "ICBC Facility Agreement") on 13 December 2010 pursuant to which ICBC lent US$340,000,000 to LLC KS GOK to fund the construction of the Group's mining operations at K&S Project in time for the start of major construction works in early 2011. The whole facility amount was originally repayable semi-annually in 16 instalments of US$21,250,000 each, starting from December 2014 and would be fully repayable by June 2022. On 27 February 2017, ICBC agreed to restructure two repayment instalments originally due for payment on 20 June 2017 and 20 December 2017 in an aggregate amount of US$42,500,000 evenly into five subsequent semi-annual repayment instalments. As a result, each of the repayment instalments due on 20 June 2018, 20 December 2018, 20 June 2019, 20 December 2019 and 20 June 2020 increased by US$8,500,000 to an amount equal to US$29,750,000.

## 25. BORROWING (CONTINUED)

### Bank loan from ICBC (Continued)

The loan is carried at amortised cost and is interest bearing at an effective interest rate of 6.8% (2017: 6.41%) per annum. The outstanding loan principal was US$169,637,000 as at 31 December 2018 (2017: US$233,750,000). On 19 March 2019, the Group repaid the outstanding loan principal and interest in full and terminated the ICBC Facility Agreement.

As at 31 December 2018, a required balance of US$977,000 (2017: US$1,977,000) was deposited in a debt service reserve account ("DSRA") with ICBC under a security deposit agreement ("DSRA Agreement") related to the ICBC Facility agreement without replenishment. Hence, the deposits was presented as restricted deposit under non-current assets. The amount is refundable on repayment to the loan and termination of the DSRA Agreement.

The loan is secured by a guarantee from a shareholder, Petropavlovsk plc.

Details of the guarantee granted by Petropavlovsk plc in relation to the ICBC Facility Agreement are set out in note 34.

### Bank loan from Sberbank of Russia PJSC ("Sberbank")

On 17 November 2016, Ariti HK Limited., a wholly-owned subsidiary of the Company, obtained a revolving loan facility from Sberbank of Russia PJSC primarily for working capital financing for the purchase of mineral resources from LLC KS GOK. The bank has granted Ariti HK Limited. a loan facility to the extent of US$7,000,000 up to 31 March 2017 and US$10,000,000 for the period from 1 April 2017 to 16 May 2018. The loan facility carried interest at 6% per annum and the loan principal was fully repaid in May 2018. This loan facility has been terminated on the repayment of the loan.

### Loan from EPC-Finance LLC

On 27 April 2018, LLC Petropavlovsk Iron Ore, a subsidiary of the Group, obtained an unsecured loan facility of RUB6,000,000 from EPC-Finance LLC, an independent third party. The loan carries interest of 11% per annum and is repayable on 27 April 2020. As at 31 December 2018, RUB4,080,000 (equivalent to US$66,000) had been drawn down.

### Loans from CJSC Pokrovskiy Rudnik

On 13 June 2018, the Group obtained an unsecured short-term loan of RUB1,877,712,900 (equivalent to US$29,750,000) from CJSC Pokrovskiy Rudnik, a subsidiary of Petropavlovsk PLC. The loan carries interest of 12% per annum and is repayable on 21 March 2019.

On 18 December 2018, the Group obtained a second unsecured short-term loan of RUB1,798,712,000 (equivalent to US$27,000,000) from CJSC Pokrovskiy Rudnik. The loan carries interest of 16% per annum and is repayable on 21 March 2019.

On 21 March 2019, the Group repaid the outstanding loan principal and interest in full and terminated the credit facility.

## 25. BORROWINGS (CONTINUED)

### Loan from Gazprombank

On 18 December 2018, the Group entered into two facility agreements for a loan in aggregate of US$240 million (the "Gazprombank Facility"). The Gazprombank Facility will mature in 2026 and consists of two tranches. The principal under the first tranche amounts to US$160 million with interest being charged at the London Inter-bank Offer Rate ("LIBOR") +5.7% per annum and is repayable in equal quarterly payments during the term of the Gazprombank Facility, the final payment in December 2026. The principal under the second tranche amounts to US$80 million with interest being charged at LIBOR+7.7% per annum and is repayable in full at the end of the term, in December 2026. Interest charged on the drawn down amounts under the two tranches is payable in equal quarterly payments during the term of the Gazprombank Facility.

On 19 March 2019, the Group drew down on the Gazprombank Facility to repay the bank loan from ICBC in full of approximately US$169 million to finance the K&S Project's working capital of approximately US$3 million.

On 21 March 2019, the Group has further drawn down on the Gazprombank Facility to repay the loan from CJSC Pokrovskiy Rudnik in full of approximately US$57 million.

The remaining amounts of the Gazprombank Facility will be used for the following proposes: (i) to finance the K&S project's working capital to approximately US$5 million and (ii) to repay part of the guarantee fee of approximately US$6 million owed by the Group to Petropavlovsk plc in respect of the guarantee of the ICBC Facility Arrangement.

The Gazprombank Facility is secured by a charge over the property, plant and equipment and a guarantee from Petropavlovsk plc.

The drawn down of the Gazprombank Facility is subject to the following requirements:

a) LLC KS GOK must maintain an authorised capital not less than RUB9.1 billion;

b) the Group must provide quarterly reporting; and

c) the Group must meet the following financial covenants:

   i) Net Debt/EBITDA ratio:

      - For the periods ending on 30 June 2019 and 31 December 2019 of less than 6.5 times
      - For the periods ending 30 June 2020 and 31 December 2020 of less than 5.0 times
      - For the periods ending 30 June 2021 and 31 December 2021 of less than 3.5 times and,
      - Starting from the period ending on 30 June 2022, of less than 3.0 times

   ii) Debt Service Coverage Ratio (DSCR):

      - For the periods ending on 30 June 2019 or 31 December 2019 – not less than 1.1 times
      - Starting from the period ending on 30 June 2020 – not less than 1.2 times

## 26. OTHER FINANCIAL LIABILITIES

| | Current | |
|---|---|---|
| | **2018** | 2017 |
| | **US$'000** | US$'000 |
| Other financial liabilities | | |
| **Derivatives under hedge accounting** | | |
| Cash flow hedges – Commodity Swap Contracts | **–** | 1,852 |

### Cash flow hedges

At 31 December 2017, the Group had outstanding commodity swap contracts that were designated as highly effective hedging instruments to manage the Group's iron ore price exposure in relation to iron ore forecast sales. During the year ended 31 December 2018, fair value change of the hedging instrument amounting to US$1,852,000 have been reclassified from hedging reserve to profit or loss upon settlement.

## 27. PROVISION FOR CLOSE DOWN AND RESTORATION COSTS

| | **2018** | 2017 |
|---|---|---|
| | **US$'000** | US$'000 |
| At the beginning of year | **14,030** | 10,115 |
| Unwinding of discount | **937** | 795 |
| Exchange adjustments | **(2,492)** | 579 |
| Change in estimate | **(2,449)** | 2,541 |
| At the end of year | **10,026** | 14,030 |

The provision represents amounts recognised in relation to mine closure, site and environmental restoration costs which are based on estimates provided by in-house engineers and geologists.

The amount represents the obligation recognised for the Kuranakh Project, which is located in the Everyskya Avtononnaya Oblast of the Russian Federation, and the K&S Project. The Kuranakh Project had been put under a care and maintenance programme in March 2016. The related obligation for the Kuranakh Project has been recognised using an effective interest rate of 6.8% (2017: 6.8%) per annum with the expected timing of the cash outflows arising on the closure of mining operations to be incurred after 2021 and the K&S Project recognised at 8.7% (2017: 7.4%) per annum with the expected timing of cash outflows on the closure of mining operation currently estimated to be after 2041.

## 28. SHARE-BASED PAYMENTS TRANSACTIONS

### Share Option Scheme

In November 2015, the Company adopted a share option scheme ("Share Option Scheme") for the primary purpose of providing incentives to directors and eligible employees, that will expire on 19 November 2025. Under the Share Option Scheme, the Company's directors may, at their sole discretion, grant options (the "Options") to any directors and employees of the Group to subscribe for shares of the Company at a price which shall be at least the higher of (i) the closing price of shares of the Company as stated in the daily quotation sheet of the Stock Exchange on the day of the offer of grant; and (ii) the average closing price of the shares of the Company as stated in the Stock Exchange's daily quotation sheet for the five trading days immediately preceding the day of the offer of the grant. A nominal consideration of HK$1 is payable on acceptance of the grant of an option.

The total number of shares which may be issued upon exercise of all options to be granted under the Share Option Scheme and any other share option scheme of the Company must not, in aggregate, exceed 10% of the shares in issue on the date of commencement of dealings in the shares of the Company on the Stock Exchange, unless the Company obtains further approval from the shareholders.

The number of shares issued and to be issued in respect of which options granted and may be granted to any individual in any one year is not permitted to exceed 1% of the shares of the Company in issue at any point in time, without prior approval from the Company's shareholders. Options granted to substantial shareholders or independent non-executive directors in excess of 0.1% of the Company's share capital or with a value in excess of HK$5 million must be approved in advance by the Company's shareholders.

Notwithstanding the above, the maximum number of shares to be issued upon the exercise of all outstanding options granted and yet to be exercised under the Share Option Scheme and any other share option scheme of the Company must not, in aggregate, exceed 30% of the relevant shares or securities of the Company in issue from time to time.

### Share Options granted in 2015

On 20 November 2015, 228,000,000 share options were granted to the Company's selected employees and directors. The exercise price is HK$0.315 per share, which was higher than the closing price of the Company's shares on the date of grant of HK$0.246 per share.

Of the total 228,000,000 share options, 87,000,000 share options were granted to directors of the Company, and 141,000,000 share options were granted to certain employees of the Group. The share options are valid for a period of 10 years from the date of grant and are subject to the vesting periods as follows:

– one-third of the Options granted to each Grantee shall vest on 19 November 2016;

– one-third of the Options granted to each Grantee shall vest on 19 November 2017; and

– one-third of the Options granted to each Grantee shall vest on 19 November 2018.

## 28. SHARE-BASED PAYMENTS TRANSACTIONS (CONTINUED)

### Share Options granted in 2015 (Continued)

Each one-third tranche of the share options granted in 2015 are subject to the following vesting conditions:

– 25% of the tranche vesting relates to the achievement of certain production targets;

– 25% of the tranche vesting relates to profitability;

– 25% of the tranche vesting relates to the growth and development of the Group; and

– 25% of the tranche vesting relates to the meeting of certain health, safety and environmental requirements.

To address the dilutive effect of the Company's share placement which completed on 30 December 2016 (please refer to note 23 for details of the placement), the exercise price and the aggregate number of share options granted on 20 November 2015 have been adjusted to HK$0.296 and 242,328,035 respectively. One-third of the share options granted (80,776,011 share options) were due to vest in 2016, subject to the achievement of certain performance targets during the vesting period. However, as the K&S Project was not in commercial production so the grantees were not in the position to deliver on certain performance targets, the Board has determined that 50% of the share options that were due for vesting in 2016 (i.e. 40,388,008 share options) vested in 2017. As such, 40,388,003 share options vested in 2016 and became exercisable. Further, one-third (37,288,055 share options) of the remaining share options (111,864,152 share options) due to vest in 2017 have been cancelled as approved by the remuneration committee of the Company and the effect of accelerating the expense is not significant.

In 2018, one-third of the share options granted (74,576,097 share options) were due for vesting, subject to the achievement of certain performance targets during the vesting period. After assessing the level of achievement of the performance targets. 9,322,016 share options have been cancelled and the effect of accelerating the expense is not significant.

At 31 December 2018, no share options were forfeited (2017: 15,499,783) and 180,218,181 share options (2017: 189,540,197 share options) granted remained outstanding under the scheme. The number of exercisable share options under the scheme is 180,218,181 (2017: 114,964,100) as at 31 December 2018. No share options granted in 2015 were exercised during the years ended 31 December 2018 and 2017.

## 28. SHARE-BASED PAYMENTS TRANSACTIONS (CONTINUED)

### Share Options granted in 2017

On 29 September 2017, 296,400,000 share options were granted to the Company's selected employees and directors. The exercise price is HK$0.2728 per share, which was higher than the closing price of the Company's shares on the date of grant of HK$0.248 per share.

Of the total 296,400,000 share options, 111,600,000 share options were granted to directors of the Company, and 184,800,000 share options were granted to certain employees of the Group. The share options are valid for a period of 5 years from the date of grant and are subject to the vesting periods as follows:

- one-third of the Options granted to each Grantee shall vest on 28 September 2018;
- one-third of the Options granted to each Grantee shall vest on 28 September 2019; and
- one-third of the Options granted to each Grantee shall vest on 28 September 2020.

Each one-third tranche of the share options granted in 2017 are subject to the following vesting conditions:

- 25% of the tranche vesting relates to the achievement of certain production targets;
- 25% of the tranche vesting relates to profitability;
- 25% of the tranche vesting relates to the growth and development of the Group; and
- 25% of the tranche vesting relates to the meeting of certain health, safety and environmental requirements.

In 2018, one-third of the share options granted (98,800,000 share options) were due to vest, subject to the achievement of certain performance targets during the vesting period. After assessing the level of achievement of the performance targets, 12,350,000 share options have been cancelled and the effect of accelerating the expense is not significant.

At 31 December 2018, 284,050,000 share options granted remained outstanding under the scheme. The number of exercisable share options under the scheme is 86,450,000. No share options were exercised or lapsed during the year ended 31 December 2018.

The fair value of the share options granted during the year ended 31 December 2017 was approximately HK$34,829,000 and was determined using the Binomial valuation model by an independent valuer, RSM Consulting (Hong Kong) Limited with value per option in the range of HK$0.1096 to HK$0.1236. The significant inputs into the model are as follows:

| | |
|---|---|
| Share price, at the grant date (HK$) | 0.248 |
| Exercise price (HK$) | 0.2728 |
| Expected volatility (%) | 62.50 |
| Expected dividend yield (%) | – |
| Expected share option life (years) | 5 |
| Annual risk-free interest rate (%) | 1.29 |

## 28. SHARE-BASED PAYMENTS TRANSACTIONS (CONTINUED)

### Share Options granted in 2017 (Continued)

The volatility measured at the standard deviation of continuously compounded share returns is based on statistical analysis of daily share prices over the previous five years at the date of the valuation.

The Binomial valuation model has been used to estimate the fair value of the options. The variables and assumptions used in computing the fair value of the share options are based on the directors' best estimate. The value of an option varies with different variables of certain subjective assumptions.

The expected share option life is based on the share option maturity period of 5 years.

The amount expensed under the Share Option Scheme during the year ended 31 December 2018 totalled US$1,966,000 (2017: US$1,515,000).

## 29. RETIREMENT BENEFIT SCHEMES

The Group operates a Mandatory Provident Fund Scheme ("MPF") for all qualifying employees in Hong Kong. The assets of the plans are held separately from those of the Group in funds under the control of trustees. The contributions charged to the consolidated statement of profit or loss for the year ended 31 December 2018 amounted to US$45,000 (2017: US$41,000) and represents contributions payable to these plans by the Group at rates specified in the rules of the plans. As at 31 December 2018, contributions of US$6,000 (2017: US$5,000) due in respect of the year ended 31 December 2018 (2017) had not been paid over to the plans. The amounts were paid subsequent to the end of the reporting period.

The Group also operates an investment fund for its directors and the total amount is charged to the consolidated statement of profit or loss for the year ended 31 December 2018 is US$114,000 (2017: US$105,000).

## 30. NOTES TO THE CASH FLOW STATEMENTS

### (a) Reconciliation of profit before taxation to cash generated from operations

| | **2018** | 2017 |
|---|---|---|
| | **US$'000** | US$'000 |
| Profit before taxation | **68,335** | 112,625 |
| Adjustments for: | | |
| Depreciation of property, plant and equipment | **21,208** | 14,618 |
| Financial income | **(82)** | (114) |
| Financial expenses | **21,679** | 22,410 |
| Net gain on disposal of property, plant and equipment | **(508)** | (539) |
| Reversal of impairment losses | **(90,483)** | (129,614) |
| Share-based payments expense | **1,966** | 1,515 |
| Net foreign exchange (gain) loss | **(4,555)** | 857 |
| Impairment loss on General Nice receivable | **7,519** | – |
| Other non-cash adjustments | **(2,900)** | 18 |
| Operating cash flows before movements in working capital | **22,179** | 21,776 |
| Increase in inventories | **(4,982)** | (8,665) |
| Decrease in trade and other receivables | **4,899** | 2,295 |
| Increase in trade and other payables | **6,828** | 6,312 |
| Net cash generated from operations | **28,924** | 21,718 |

### (b) Major non-cash transactions

There were no major non-cash transactions during the years ended 31 December 2018 and 2017.

## 30. NOTES TO THE CASH FLOW STATEMENTS (CONTINUED)

### (c) Reconciliation of liabilities arising from financing activities

The table below details changes in the Group's liabilities arising from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are those for which cash flows were, or future cash flows will be, classified in the Group's consolidated statement of cash flows as cash flows from financing activities.

| | **Borrowings US$'000 (Note 25)** | **Amount due to Petropavlovsk plc included in other payables US$'000** | **Total US$'000** |
|---|---|---|---|
| At 1 January 2018 | **223,028** | **6,377** | **229,405** |
| Financing cash flows | **(22,478)** | **–** | **(22,478)** |
| Interest expense | **15,241** | **–** | **15,241** |
| Loan guarantee fee (included in financial expense) | **–** | **3,940** | **3,940** |
| Exchange difference | **(2,922)** | **–** | **(2,922)** |
| At 31 December 2018 | **212,869** | **10,317** | **223,186** |

| | Borrowings US$'000 (Note 25) | Amount due to Petropavlovsk plc included in other payables US$'000 | Total US$'000 |
|---|---|---|---|
| At 1 January 2017 | 242,983 | 3,396 | 246,379 |
| Financing cash flows | (36,038) | (1,147) | (37,185) |
| Interest expense | 16,083 | – | 16,083 |
| Loan guarantee fee | – | 4,128 | 4,128 |
| At 31 December 2017 | 223,028 | 6,377 | 229,405 |

## 31. OPERATING LEASE

### The Group as a lessee

| | 2018<br>US$'000 | 2017<br>US$'000 |
|---|---|---|
| Minimum lease payments paid under operating leases during the year | 3,682 | 3,163 |

At the end of the reporting period, the Group had commitments for future minimum lease payments under non-cancellable operating leases which fall due as follows:

| | 2018<br>US$'000 | 2017<br>US$'000 |
|---|---|---|
| Within one year | 4,222 | 121 |
| In the second to fifth year inclusive | 12,678 | 259 |
| | 16,900 | 380 |

Operating lease payments as at 31 December 2018 represent rentals payable by the Group for certain of its office properties and transport equipment. Leases are negotiated for an average term of 2 years and rentals are fixed for an average of 2 years.

### The Group as a lessor

The Group earned property rental income of approximately US$1,938,000 during the year ended 31 December 2018 (2017: US$2,535,000), relating to the sub-let of part of the floor space of buildings owned by OJSC Giproruda, machineries and wagons subleased by LLC KS GOK, subsidiaries of the Group. At 31 December 2018 and 2017, the Group had contracted with tenants for minimum lease payments due within four years and eleven months respectively. The total minimum lease payment is approximately US$451,000 and US$657,000 as at 31 December 2018 and 2017 respectively.

| | 2018<br>US$'000 | 2017<br>US$'000 |
|---|---|---|
| Within one year | 451 | 436 |
| In the second to fifth year inclusive | – | 221 |
| | 451 | 657 |

## 32. CAPITAL RISK MANAGEMENT

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to optimise the weighted average cost of capital and tax efficiency subject to maintaining sufficient financial flexibility to undertake its investment plans.

The capital structure of the Group consists of net debt, which includes time deposits, cash and cash equivalents, borrowings and equity attributable to owners of the Company, comprising issued capital and reserves.

### Externally imposed capital requirement

The Group is not subject to externally imposed capital requirements except for the DSRA disclosed in note 25 in relation to the bank credit facilities.

## 33. FINANCIAL INSTRUMENTS

### Significant accounting policies

Details of significant accounting policies and methods adopted, including the criteria for recognition, the basis of measurement and the basis on which income and expenses are recognised, in respect of each class of financial asset, financial liability and equity instrument are disclosed in note 3 to the consolidated financial statements.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Group takes into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Fair value for measurement and/or disclosure purposes in these consolidated financial statements is determined on such a basis, except for share-based payment transactions that are within the scope of HKFRS 2 Share-based Payment, leasing transactions that are within the scope of HKAS 17 *Leases*, and measurements that have some similarities to fair value but are not fair value, such as net realisable value in HKAS 2 *Inventories* or value in use in HKAS 36 *Impairment of Assets*.

In addition, for financial reporting purposes, fair value measurements are categorised into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date;
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

## 33. FINANCIAL INSTRUMENTS (CONTINUED)

### Categories of financial instruments

| | **Carrying value as at 31 December 2018 US$'000** | Carrying value as at 31 December 2017 US$'000 |
|---|---|---|
| **Financial assets** | | |
| Mandatorily measured at FVTPL | **2,227** | – |
| Financial assets at amortised cost | **10,618** | – |
| Loans and receivables (including cash and cash equivalents) | **–** | 25,718 |
| **Financial liabilities** | | |
| Derivative instruments in designated hedge accounting relationships | **–** | (1,857) |
| Amortised cost | **(263,518)** | (261,317) |

### Financial risk management objectives

The Group's activities expose it to other price risk, interest rate risk, foreign currency risk, credit risk and liquidity risk. The Group's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance.

Risk management is carried out by a central finance department and all key risk management decisions are approved by the Board of Directors. The Group identifies and evaluates financial risks in close cooperation with the Group's operating units.

### Other price risk

The Group's trade receivables and derivative financial instruments are measured at fair value at the end of the reporting period. Therefore, the Group is exposed to commodity price risk in relation to the trade receivables and financial instruments.

### Sensitivity analysis

The Group's sensitivity to the trade receivables and derivative financial instrument is not significant.

## 33. FINANCIAL INSTRUMENTS (CONTINUED)

### Foreign currency risk management

The group entities undertake certain transactions denominated in foreign currencies, principally Pounds Sterling, US$, Euros, Hong Kong Dollars ("HK$") and Russian Roubles, which exposes the Group to exchange rate risk associated with fluctuations in the relative values of Pounds Sterling, US$, Euros, HK$ and Russian Roubles.

Exchange rate risks are mitigated to the extent considered necessary by the Board of Directors of the Company, through holding the relevant currencies for future settlement. At present, the Group does not undertake any foreign currency transaction hedging.

The carrying amounts of the foreign currency denominated monetary assets and monetary liabilities of the Group at the reporting date are as follows:

| | **Assets** | | **Liabilities** | |
|---|---|---|---|---|
| | **2018** | 2017 | **2018** | 2017 |
| | **US$'000** | US$'000 | **US$'000** | US$'000 |
| Russian Roubles | **5,852** | 2,621 | **48,782** | 22,139 |
| US$ | **20** | 45 | **–** | – |
| Renminbi | **16** | – | **–** | – |
| Pounds Sterling | **–** | 26 | **59** | 1 |
| Euros | **–** | – | **448** | – |
| HK$ | **269** | 11,522 | **20** | – |

### Foreign currency sensitivity analysis

The Group is mainly exposed to exchange rate movements between US$ and Russian Roubles. The following table details the Group's sensitivity to a 25% (2017: 25%) change in exchange rate of functional currency (i.e. US$) of the group entities against the relevant foreign currency (i.e. Russian Roubles) for the year. The percentage change analysed represents management's assessment of a reasonably possible change in foreign currency rates. No sensitivity analysis is presented for foreign currency fluctuation between US$ against HK$ because HK$ is pegged to US$.

A positive number below indicates an increase in post-tax profit where the functional currency of the group entities strengthen 25% against Russian Roubles. For a 25% weakening of functional currency of the group entities against the relevant foreign currency, there would be an equal and opposite impact on the profit or loss.

| | **Russian Rouble currency impact** | |
|---|---|---|
| | **2018** | 2017 |
| | **US$'000** | US$'000 |
| Profit or loss | **8,586** | 3,904 |

The Group's policy is to hold a portion of its cash equivalents in Russian Roubles to cover its exposure arising on capital and operational expenditure incurred in Russian Roubles.

## 33. FINANCIAL INSTRUMENTS (CONTINUED)

### Interest rate risk management

The Group is exposed to fair value interest rate risk mainly in relation to construction costs payable and borrowings (see note 25 for details) and cash flow interest rate risk in relation to variable-rate borrowings (see note 25 for details of these borrowings). The Group's policy is to maintain borrowings at variable rates.

The Group's exposure to interest rates on financial liabilities are detailed in the liquidity risk management section of this note. The Group's cash flow interest rate risk is mainly concentrated on the fluctuation of LIBOR arising from the Group's US dollar denominated borrowings. The Group did not enter into any interest rate swaps to hedge against its exposure to changes in fair values of the borrowings.

The Group is exposed to cash flow interest rate risk through the holding of cash and cash equivalents, restricted bank deposits, time deposits and borrowings. The interest rates attached to these instruments are at floating rates.

If interest rates had been 100 basis points higher/lower, and all other variables were held constant, the Group's post-tax profit for the year ended 31 December 2018 would decrease/increase by US$62,000 (2017: US$60,000).

### Credit risk management and impairment assessment

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Group. The Group has adopted a policy of only dealing with creditworthy counterparties. The Group's exposure and the credit ratings of the counterparties are monitored by the directors of the Company, and limits have been established to ensure that the aggregate value of transactions is spread amongst approved counterparties.

In order to minimise the credit risk, the management of the Group has delegated a team responsible for determination of credit limits and credit approvals. Before accepting any new customer, the Group uses an internal credit scoring system to assess the potential customer's credit quality and defines credit limits by customer. Limits and scoring attributed to customers are reviewed annually. Other monitoring procedures are in place to ensure that follow-up action is taken to recover overdue debts. In addition, the Group performs impairment assessment under the ECL model upon application of HKFRS 9 (2017: incurred loss model) on other receivables based on individual debtor. In this regard, the directors of the Company consider that the Group's credit risk is significantly reduced.

The credit risk on bank balances is limited because the counterparties are banks with high credit ratings assigned by international credit-rating agencies.

Other than concentration of credit risk on liquid funds which are deposited with several banks with high credit ratings, the Group does not have any other significant concentration of credit risk. The maximum credit risk exposure of the Group is limited to the carrying amount of the financial assets.

The Group's concentration of credit risk by geographical locations is mainly in Russia, which accounted for 100% (31 December 2017: 39%) of the total trade receivables as at 31 December 2018.

## 33. FINANCIAL INSTRUMENTS (CONTINUED)

### Credit risk management and impairment assessment (continued)

The table below details the credit risk exposure of the Group's financial assets, which are subject to ECL assessment:

| 2018 | Note | External credit rating | Internal credit rating | 12-month or lifetime ECL | Gross carrying amount US$'000 |
|---|---|---|---|---|---|
| **Financial assets at amortised cost** | | | | | |
| Other receivables | (a) | N/A | Low | 12-month ECL | 1,967 |
| Bank balances | | AAA | Low | 12-month ECL | 7,637 |
| Restricted bank deposit | | AAA | Low | 12-month ECL | 977 |

Note:

(a) For the purpose of internal credit risk management, the Group uses both publicly available and past due information to assess whether credit risk has increased significantly since initial recognition.

| | Past due US$'000 | Not past due terms US$'000 | Total US$'000 |
|---|---|---|---|
| Other receivables | – | 1,967 | 1,967 |

During the year ended 31 December 2018, the Group has written off an US$7.5 million on credit impaired debtors and US$0.2 million impairment allowance on other debtors. Please see details in note 18.

The following table shows the reconciliation of loss allowances that have been recognised for other receivables.

| | 12m ECL US$'000 | Lifetime ECL (not credit -impaired) US$'000 | Lifetime ECL (credit -impaired) US$'000 | Total US$'000 |
|---|---|---|---|---|
| **As at 31 December 2017 under HKAS 39** | – | – | – | – |
| Adjustment upon application of HKFRS 9 | – | 2,900 | – | 2,900 |
| **As at 1 January 2018 – As restated** | **–** | **2,900** | **–** | **2,900** |
| Changes due to financial instruments recognised as at 1 January: | | | | |
| – Transfer to credit impaired | **–** | **(2,900)** | **2,900** | **–** |
| – Impairment loss recognised | **–** | **–** | **7,519** | **7,519** |
| – Financial instruments recognised during the year | **222** | **–** | **–** | **222** |
| – Write-offs | **–** | **–** | **(10,419)** | **(10,419)** |
| **As at 31 December 2018** | **222** | **–** | **–** | **222** |

## 33. FINANCIAL INSTRUMENTS (CONTINUED)

### Liquidity risk management

Ultimate responsibility for liquidity risk management rests with management. At 31 December 2018, the Group's principal financial liabilities was trade and other payables, borrowings, construction costs payable and other financial liabilities. The management of the Group monitors the level of liquid assets available to the Group and the level of funding required to meet its short, medium and long-term requirements. The following table details the Group's remaining contractual maturity for its non-derivative financial liabilities.

The following tables include both interest and principal cash flows. To the extent that interest flows are floating rate, the undiscounted amount is derived from interest rate at the end of the reporting period.

In addition, the following table details the Group's liquidity analysis for its derivative financial instruments. The tables have been drawn up based on the undiscounted contractual net cash (inflows) and outflows on derivative instruments that settle on a net basis. When the amount payable is not fixed, the amount disclosed has been determined by reference to the projected interest rates as illustrated by the yield curves existing at the end of the reporting period. The liquidity analysis for the Group's derivative financial instruments are prepared based on the contractual maturities as the management consider that the contractual maturities are essential for an understanding of the timing of the cash flows of derivatives.

| | Weight average interest rate % | Due on demand or within one year US$'000 | Due within one to two years US$'000 | Due within two to five years US$'000 | Due after more than five years US$'000 | Total undiscounted cash flows US$'000 | Carrying amount at 31 December 2018 US$'000 |
|---|---|---|---|---|---|---|---|
| **As at 31 December 2018** | | | | | | | |
| *Non-derivative financial liabilities* | | | | | | | |
| Trade and other payables | **–** | **28,557** | **–** | **–** | **–** | **28,557** | **28,557** |
| Borrowings | **6.8** | **111,954** | **49,713** | **62,062** | **–** | **223,729** | **212,869** |
| Construction costs payable | **8.2** | **13,596** | **9,099** | **–** | **–** | **22,695** | **22,092** |
| | | **154,107** | **58,812** | **62,062** | **–** | **274,981** | **263,518** |
| **As at 31 December 2017** | | | | | | | |
| *Non-derivative financial liabilities* | | | | | | | |
| Trade and other payables | – | 22,220 | – | – | – | 22,220 | 22,220 |
| Borrowings | 6.4 | 71,116 | 66,902 | 122,361 | – | 260,379 | 223,028 |
| Construction costs payable | 8.2 | – | 9,099 | 9,099 | – | 18,198 | 16,069 |
| | | 93,336 | 76,001 | 131,460 | – | 300,797 | 261,317 |
| *Derivatives – net settlement* | | | | | | | |
| Commodity swap contracts | | 1,857 | – | – | – | 1,857 | 1,857 |

For the year ended 31 December 2018

## 33. FINANCIAL INSTRUMENTS (CONTINUED)

### Fair value

The fair value of financial assets and financial liabilities is determined in accordance with generally accepted pricing models based on discounted cash flow analysis. The fair value of derivative instruments are measured using quoted swap price and discounted using applicable yield rates for the duration of the instruments.

## 34. RELATED PARTY DISCLOSURES

Transactions between the Group and its related parties are disclosed below. All of the transactions were reviewed by independent members of the Board of the Company.

During the year, the Group entered into the following transactions with related parties:

### Related parties

Petropavlovsk plc, which is a substantial shareholder of the Company, and its subsidiaries are considered to be related parties.

As disclosed in note 25, Petropavlovsk plc provides a guarantee to secure the Group's borrowing, the Group has entered into an agreement setting out the terms on which Petropavlovsk plc provides the guarantee.

### Trading transactions

The Group entered into the following transactions relating to the day-to-day operations of the business:

| | **Services provided[a]** | | **Services received[b]** | |
|---|---|---|---|---|
| | **2018 US$'000** | 2017 US$'000 | **2018 US$'000** | 2017 US$'000 |
| **Petropavlovsk PLC and its subsidiaries** | | | | |
| Petropavlovsk PLC | **–** | – | **3,959** | 4,128 |
| LLC NPGF Regis | **1** | 15 | **80** | – |
| CJSC Albynsky Rudnik | **–** | 408 | **–** | – |
| CJSC Pokrovskiy Rudnik | **32** | 1,165 | **2,447[c]** | – |
| Malomirsky Rudnik | **199** | – | **–** | – |
| MC Petropavlovsk | **335** | 361 | **70** | 83 |
| LLC Gidrometallurgia | **110** | 113 | **–** | – |
| LLC BMRZ | **–** | – | **11** | – |

| | **Interest on outstanding capital contribution[c]** | |
|---|---|---|
| | **2018 US$'000** | 2017 US$'000 |
| **Transaction with other related party** | | |
| General Nice | **–** | 4,562 |

## 34. RELATED PARTY DISCLOSURES (CONTINUED)

Notes:

(a) Amounts represent fees received from related parties for provision of administrative support.

(b) Amounts represent fee paid/payable to related parties for receipt of financial guarantee, administrative support and helicopter services.

A fee equal to 1.75% of the outstanding loan amount under the ICBC Facility Agreement is paid to Petropavlovsk plc. During the year ended 31 December 2018, a fee of US$3,940,000 has been charged to the Group for the provision of the guarantee by Petropavlovsk plc (2017: US$4,128,000). As at 31 December 2018, the outstanding balance of guarantee fee payable to Petropavlovsk plc is US$10,317,000 (2017: US$6,377,000).

(c) Amount represents interest charged on loan borrowings from a related party (see note 25 for details).

The related party transactions as disclosed above were conducted in accordance with terms mutually agreed with the counter parties.

The outstanding balances with related parties at the end of the reporting period are set out below.

| | Amounts owed by related parties[a] | | Amounts owed to related parties[b] | |
|---|---|---|---|---|
| | **2018** | 2017 | **2018** | 2017 |
| | **US$'000** | US$'000 | **US$'000** | US$'000 |
| **Petropavlovsk PLC and its subsidiaries** | | | | |
| Petropavlovsk PLC | **–** | – | **10,336** | 6,390 |
| OJSC Irgiredmet | **–** | – | **2** | 2 |
| LLC NPGF Regis | **16** | 18 | **104** | 105 |
| CJSC Pokrovskiy Rudnik | **163** | 156 | **54,076**[c] | – |
| CJSC Albynsky Rudnik | **135** | 162 | **–** | – |
| Malomirsky Rudnik | **151** | – | **–** | – |
| MC Petropavlovsk | **509** | 188 | **1,952** | 1,975 |
| LLC Gidrometallurgia | **–** | 3 | **–** | – |
| **Outstanding balances with other related parties** | | | | |
| General Nice | **–** | 12,971 | **–** | 1,592 |
| | **974** | 13,498 | **66,470** | 10,064 |

Notes:

(a) The amounts are recorded in other receivables, which are unsecured, non-interest bearing and repayable on agreed terms within twelve months from the end of the reporting period.

(b) The amounts, except for the other loans of US$54,029,000, are recorded in other payables, which are unsecured, non-interest bearing and repayable on agreed terms within twelve months from the end of the reporting period.

(c) The amounts represent loan borrowings from CJSC Pokrovskiy Rudnik at the end of the reporting period.

## 34. RELATED PARTY DISCLOSURES (CONTINUED)

### Key Management Compensation

The remuneration of directors, which represents members of key management, during the year was as follows:

| | **2018 US$'000** | 2017 US$'000 |
|---|---|---|
| Short-term benefits | **2,195** | 1,979 |
| Post-employment benefits | **114** | 105 |
| Share-based payments | **825** | 576 |
| | **3,134** | 2,660 |

The remuneration of key management personnel is determined by the remuneration committee regard to the performance of individuals and market trends.

## 35. PARTICULARS OF PRINCIPAL SUBSIDIARIES

Details of the Group's principal subsidiaries at the end of the reporting period are set out below:

| Name of company | Place and date of incorporation/ establishment | Issued and fully paid share capital/ registered capital[d] | Equity interest attributable to the Group 2018[c] | 2017[c] | Principal activities |
|---|---|---|---|---|---|
| Arfin Limited | Cyprus 22 August 2005 | US$18,707 | **100%** | 100% | Provision of financing services for the Group |
| Brasenose Services Limited | Cyprus 20 January 2004 | US$64,017 | **100%** | 100% | Investment holding |
| Dardanius Limited | Cyprus 16 October 2006 | US$5,689 | **100%** | 100% | Investment holding |
| Esimanor Limited | Cyprus 15 March 2008 | US$4,461 | **100%** | 100% | Investment holding |
| Expokom Limited | Cyprus 22 December 2005 | US$311,818 | **100%** | 100% | Investment holding |
| Guiner Enterprises Ltd | Cyprus 25 August 2007 | US$369,719 | **100%** | 100% | Investment holding |
| Kapucius Services Limited | Cyprus 12 April 2006 | US$659,136 | **100%** | 100% | Investment holding |
| Lapwing Limited | Cyprus 9 August 2006 | EUR28,795 | **99.58%** | 99.58% | Investment holding |
| Lucilius Investments Limited | Cyprus 22 November 2008 | US$27,368 | **100%** | 100% | Investment holding |
| Metellus Limited | Cyprus 21 August 2006 | US$7,800 | **100%** | 100% | Investment holding |

## 35. PARTICULARS OF PRINCIPAL SUBSIDIARIES (CONTINUED)

| Name of company | Place and date of incorporation/ establishment | Issued and fully paid share capital/ registered capital[d] | Equity interest attributable to the Group 2018[c] | 2017[c] | Principal activities |
|---|---|---|---|---|---|
| Rumier Holdings Ltd | Cyprus 3 October 2007 | US$430,809 | **100%** | 100% | Investment holding |
| Russian Titan Company Limited | Cyprus 10 November 2003 | US$270,996 | **100%** | 100% | Investment holding |
| Tenaviva Limited | Cyprus 31 December 2007 | US$5,859 | **100%** | 100% | Investment holding |
| Thorholdco (Cyprus) Limited | Cyprus 3 October 2013 | US$1,120 | **100%** | 100% | Investment holding |
| Caedmon Ltd | Cyprus 29 September 2011 | US$1,547 | **50.1%** | 50.1% | Financing and investment holding |
| Aricom Limited | United Kingdom 12 September 2003 | GBP1,334,727 | **100%** | 100% | Investment holding |
| Aricom UK Limited | United Kingdom 1 March 2007 | GBP243,315,399 | **100%** | 100% | Investment holding |
| Heilongjiang Jiatai Titanium Co. Limited[d] | PRC 11 February 2009 | RMB219,024,974 | **100%** | 100% | Development of Titanium Sponge |
| Ariti HK Limited | Hong Kong 11 February 2008 | HK$1,575,383 | **100%** | 100% | General trading |
| Ariva HK Limited | Hong Kong 11 March 2008 | HK$53,143,001 | **100%** | 100% | Investment holding |
| Thorholdco Limited | Cayman Islands 18 May 2010 | US$8,544 | **100%** | 100% | Investment holding |
| Thorrouble Limited | Cayman Islands 18 May 2010 | RUR290,860 | **100%** | 100% | Provision of financing services for the Group |
| Thordollar Limited | Cayman Islands 18 May 2010 | US$9,157 | **100%** | 100% | Provision of financing services for the Group |
| LLC Petropavlovsk – Iron Ore | Russia 25 August 2004 | RUR10,000,000 | **100%** | 100% | Business services for the Group |
| LLC KS GOK | Russia 2 August 2004 | RUR141,514,865 | **100%** | 100% | Exploration and mining – K&S |
| LLC Olekminsky Rudnik | Russia 28 March 2001 | RUR1,378,664,935 | **100%** | 100% | Exploration and mining |

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED...)

For the year ended 31 December 2018

## 35. PARTICULARS OF PRINCIPAL SUBSIDIARIES (CONTINUED)

| Name of company | Place and date of incorporation/ establishment | Issued and fully paid share capital/ registered capital[(d)] | Equity interest attributable to the Group 2018[(c)] | 2017[(c)] | Principal activities |
|---|---|---|---|---|---|
| CJSC Soviet Harbour Maritime Trade Port ("CJSC SGMTP")[(a)] | Russia 30 August 2005 | RUR1,000,000 | **100%** | 100% | Development of port for the Group |
| OJSC Giproruda[(b)] | Russia 8 December 1992 | RUR4,639 | **70.28%** | 70.28% | Engineering services |
| LLC GMMC | Russia 26 June 2006 | RUR780,000,000 | **100%** | 100% | Exploration and mining – Garinskoye |
| LLC Kostenginskiy GOK | Russia 16 February 2007 | RUR10,000 | **100%** | 100% | Exploration and mining – Kostenginskoye project |
| LLC Orlovsko– Sokhatinsky Rudnik | Russia 3 April 2007 | RUR10,000 | **100%** | 100% | Exploration and mining |
| LLC Garinskaya Infrastructure | Russia 14 December 2007 | RUR1,000,000 | **100%** | 100% | Transportation services for Garinskoye project |
| LLC Amursnab | Russia 28 December 2009 | RUR10,000,000 | **99.9%** | 99.9% | Procurement services |
| LLC Uralmining | Russia 12 October 2008 | RUR1,000,000 | **100%** | 100% | Exploration and mining – Bolshoi Seym |
| LLC Gorniy Park | Russia 25 October 2010 | RUR8,400,000 | **50.1%** | 50.1% | Exploration and mining |

(a) CJSC SGMTP is a Closed Joint Stock Company in Russia. CJSC issued shares cannot be freely traded.

(b) OJSC Giproruda is an Open Joint Stock Company in Russia. OJSC issued shares can be freely traded.

(c) As at 31 December 2018 and 2017, except for Thorholdco Limited, which was directly held by the Company, all of the interests in remaining subsidiaries are indirectly attributable to the Group.

(d) Apart from Heilongjiang Jiatai Titanium Co. Limited, a wholly foreign-owned enterprise established in the PRC with registered capital of RMB219,024,974, class of shares held by all other subsidiaries is ordinary shares.

None of the subsidiaries had issued any debt securities at the end of the year.

The above table lists the subsidiaries of the Group which, in the opinion of the directors, principally affected the results or assets of the Group. To give details of other subsidiaries would, in the opinion of the directors, result in particulars of excessive length.

At the end of the reporting period, the Company did not have subsidiaries that have material non-controlling interests.

## 36. STATEMENT OF FINANCIAL POSITION AND RESERVES OF THE COMPANY

| | **2018**<br>**US$'000** | 2017<br>US$'000 |
|---|---|---|
| **NON-CURRENT ASSET** | | |
| Investment in subsidiaries | **348,043** | 244,535 |
| | **348,043** | 244,535 |
| **CURRENT ASSETS** | | |
| Prepayment and other receivables | **377** | 11,677 |
| Amounts due from subsidiaries | **32,753** | 25,109 |
| Cash and cash equivalents | **741** | 741 |
| | **33,871** | 37,527 |
| **TOTAL ASSETS** | **381,914** | 282,062 |
| **CURRENT LIABILITIES** | | |
| Amounts due to subsidiaries | **(22,595)** | (22,637) |
| Amount due to a shareholder | **(37,383)** | (6,377) |
| Accruals and other payables | **(1,978)** | (1,604) |
| | **(61,956)** | (30,618) |
| **NET CURRENT (LIABILITIES)/ASSETS** | **(28,085)** | 6,909 |
| **NET ASSETS** | **319,958** | 251,444 |
| **CAPITAL AND RESERVES** | | |
| Share capital | **1,285,158** | 1,285,158 |
| Capital reserve | **592** | 592 |
| Share-based payment reserve | **5,047** | 3,081 |
| Other reserves | **13,759** | 13,759 |
| Accumulated losses | **(984,598)** | (1,051,146) |
| **TOTAL EQUITY** | **319,958** | 251,444 |

The Company's statement of financial position was approved and authorised for issue by the board of directors on 29 March 2019.

**Yury Makarov**
*DIRECTOR*

**Danila Kotlyarov**
*DIRECTOR*

## 36. STATEMENT OF FINANCIAL POSITION AND RESERVES OF THE COMPANY (CONTINUED)

### Movement in the Company's reserves

| | Capital reserves US$000 | Share-based payment reserve US$000 | Other reserves US$000 | Accumulated losses US$000 | Total US$000 |
|---|---|---|---|---|---|
| At 1 January 2017 | 592 | 1,566 | 9,197 | (1,162,899) | (1,151,544) |
| Profit for the year | – | – | – | 111,753 | 111,753 |
| Total comprehensive income for the year | – | – | – | 111,753 | 111,753 |
| Share-based expense | – | 1,515 | – | – | 1,515 |
| Deemed contribution from a shareholder | – | – | 4,562 | – | 4,562 |
| At 31 December 2017 | 592 | 3,081 | 13,759 | (1,051,146) | (1,033,714) |
| Adjustments | – | – | – | (2,900) | (2,900) |
| At 1 January 2018 | 592 | 3,081 | 13,759 | (1,054,046) | (1,036,614) |
| Profit for the year | – | – | – | 69,448 | 69,448 |
| Total comprehensive income for the year | – | – | – | 69,448 | 69,448 |
| Share-based expense | – | 1,966 | – | – | 1,966 |
| At 31 December 2018 | 592 | 5,047 | 13,759 | (984,598) | (965,200) |

## 37. SUBSEQUENT EVENTS

Subsequent to 31 December 2018, the following significant event took place:

As stated in note 25 to the consolidated financial statements, the Group entered into the Gazprombank Facility in December 2018. Subsequent to 31 December 2018, on 19 March 2019, the Group commenced the draw down of the Gazprombank Facility of US$240 million with its proceeds being applied in the way as described in note 25 to the consolidated financial statements.

# FINANCIAL SUMMARY

| | Results of the Group for the year ended 31 December | | | | |
|---|---|---|---|---|---|
| | 2014<br>US$'000 | 2015<br>US$'000 | 2016<br>US$'000 | 2017<br>US$'000 | **2018**<br>**US$'000** |
| Revenue | 122,414 | 81,910 | 16,467 | 109,265 | **151,549** |
| Loss/(profit) attributable to owners of the Company | (317,644) | (508,969) | (18,226) | 113,254 | **68,235** |

| | Assets and liabilities of the Group as at 31 December | | | | |
|---|---|---|---|---|---|
| | 2014<br>US$'000 | 2015<br>US$'000 | 2016<br>US$'000 | 2017<br>US$'000 | **2018**<br>**US$'000** |
| Total assets | 874,228 | 420,635 | 432,845 | 546,282 | **609,960** |
| Less: Total liabilities | (294,323) | (299,459) | (299,231) | (294,838) | **(290,450)** |
| Total net assets | 579,905 | 121,176 | 133,614 | 251,444 | **319,510** |

# GLOSSARY

This glossary contains definitions of certain terms used in this report in connection with the Group and its business. Some of these may not correspond to standard industry definitions.

## GLOSSARY

| | |
|---|---|
| ASP | Average selling price |
| Board | The Board of Directors |
| Cayiron | Cayiron Limited, a wholly owned subsidiary of Petropavlovsk and the immediate controlling shareholder of the Company |
| CEO | Chief Executive Officer |
| CFO | Chief Financial Officer |
| CFR | INCOTERM Cost and Freight |
| CIM | The Canadian Institute of Mining, Metallurgy and Petroleum |
| CNEEC | China National Electric Engineering Company Limited, the principle EPC contractor at the K&S Project |
| Concentrate | The clean product recovered from a treatment plant |
| DAP | INCOTERM Delivery at Place |
| Deposit | Mineral deposit or ore deposit is used to designate a natural occurrence of a useful mineral, or an ore, in sufficient extent and degree of concentration |
| Directors | The directors of the Company |
| DSO | Direct shipping ores. Ores that are economic due to their high grades and therefore limited requirement for upgrading and processing before sale to end users. Raw material for iron ore concentrate, isometric mineral, Fe |
| EAO | Jewish Autonomous Region, an oblast of the Russian Federation |
| EBITDA | Earnings before interest, tax, depreciation and amortisation |
| EPC | Engineering, Procurement and Construction contract |
| Exploration | Method by which ore deposits are evaluated |
| Fe | The chemical symbol for iron |
| Feasibility study | An extensive technical and financial study to assess the commercial viability of a project |
| Flotation | A mineral process used to separate mineral particles in a slurry, by causing them to selectively adhere to a froth and float to the surface |
| FOB | INCOTERM Free on Board |
| Gazprombank | Gazprombank (a Joint-Stock Company), financial institution in Russia |
| GDP | Gross domestic product |
| General Nice | General Nice Development Limited is a Hong Kong incorporated holding company which trades and produces steel raw material commodities in China and globally |
| Geophysical | Prospecting techniques which measure the physical properties (magnetism, conductivity, density, etc.) of rocks and define anomalies for further testing |
| Geotechnical | Referring to the use of scientific methods and engineering principles to acquire, interpret, and apply knowledge of earth materials for solving engineering problems |
| Grade | Relative quantity or the percentage of ore mineral or metal content in an ore body |
| HK$ | Hong Kong dollars, the lawful currency of Hong Kong |
| HKEx | Hong Kong Exchanges and Clearing Limited |
| Hong Kong | The Hong Kong Special Administrative Region of the PRC |
| ICBC | Industrial and Commercial Bank of China Limited, a company listed on the Stock Exchange (Stock code: 1398) |
| Ilmenite | Iron titanium oxide; a trigonal mineral, chemical formula $FeTiO_3$ |
| JORC code | The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2004 edition), as published by the Joint Ore Reserves Committee, as amended from time to time. |
| K&S | A magnetite development project in the Company's portfolio consisting of the Kimkan deposit and the Sutara deposit |
| LTIFR | Lost time injury frequency rate, the number of lost time injuries per million man hours worked |
| Magnetite | $Fe_3O_4$; major mineral in banded iron formations, generally low grade (1.5-40% iron) |
| Metallurgical | Describing the science concerned with the production, purification and properties of metals and their applications |
| Micon | Micon International Limited has provided consulting services to the international mining industry since 1988, with particular focus upon mineral resource estimations, metallurgical services, mine design and production scheduling, preparation of pre-feasibility and feasibility studies, independent reviews of mining and mineral properties, project monitoring, independent engineer roles, financial analysis and litigation support. Micon's resource estimate complies with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) standards and definitions, as required by Canadian National Instrument 43-101 (NI 43-101) |
| Mill | Equipment used to grind crushed rocks to the desired size for mineral extraction |
| Mineralisation | Process of formation and concentration of elements and their chemical compounds within a mass or body of rock |
| Minmetals Cheerglory | Minmetals Cheerglory Limited, the Hong Kong incorporated, wholly owned subsidiary of China Minmetals Corporation |

GLOSSARY (CONTINUED...)

| | |
|---|---|
| NI 43-101 | Also referred to as National Instrument 43-101, the (Canadian) Standards of Disclosure for Mineral Projects, including Companion Policy 43-101 as amended from time to time |
| Open-pit | A large scale hard rock surface mine; mine working or excavation open to the surface |
| Optimisation | Co-ordination of various mining and processing factors, controls and specifications to provide optimum conditions for technical/economic operation |
| Ore | Material from which a mineral or minerals of economic value can be extracted profitably or to satisfy social or political objectives |
| Ore-field | A zone of concentration of mineral occurrences |
| Ore body | Mining term to define a solid mass of mineralised rock which can be mined profitably under current or immediately foreseeable economic conditions |
| Ore Reserves | The parts of a Mineral Resource that can at present be economically mined |
| Petropavlovsk | Petropavlovsk plc, the London Stock Exchange quoted, Russian gold mining company |
| Precious metal | Gold, silver and platinum group minerals |
| Primary | Characteristic of or existing in a rock at the time of its formation; pertains to minerals, textures etc.; original |
| Processing | Methods employed to clean, process and prepare materials or ore into the final marketable product |
| Recovery | Proportion of valuable material obtained in the processing of an ore, stated as a percentage of the material recovered compared with the total material present |
| Resources | The concentration of material of economic interest in or on the earth's crust |
| ROM | Run-of-mine. This is recovered ore, as mined with dilution, before any pre-concentration or other form of processing |
| Russian Far East | Refers to the Far Eastern Federal district of the Russian Federation, which covers the area of Russia between Lake Baikal in Siberia and the Pacific Ocean. |
| Shareholder(s) | Holder of the Share(s) |
| SRP | Steel/Slag Reprocessing Project |
| Stock Exchange | The Stock Exchange of Hong Kong Limited |
| Tailings | Material that remains after all metals/minerals considered economic have been removed from the ore |
| $TiO_2$ | Titanium dioxide. A fine white powder. Used in paints, plastics or paper, it provides for maximum whiteness and opacity |
| Titanomagnetite | Concentrate which is a variation of a magnetite concentrate typically with a high vanadium and titanium content |
| Treatment plant | A plant where ore undergoes physical or chemical treatment to extract the valuable metals/ minerals |
| Tonne/t | 1 wet metric tonne (1,000 kg) |
| US Dollar or US$ | United States Dollar |

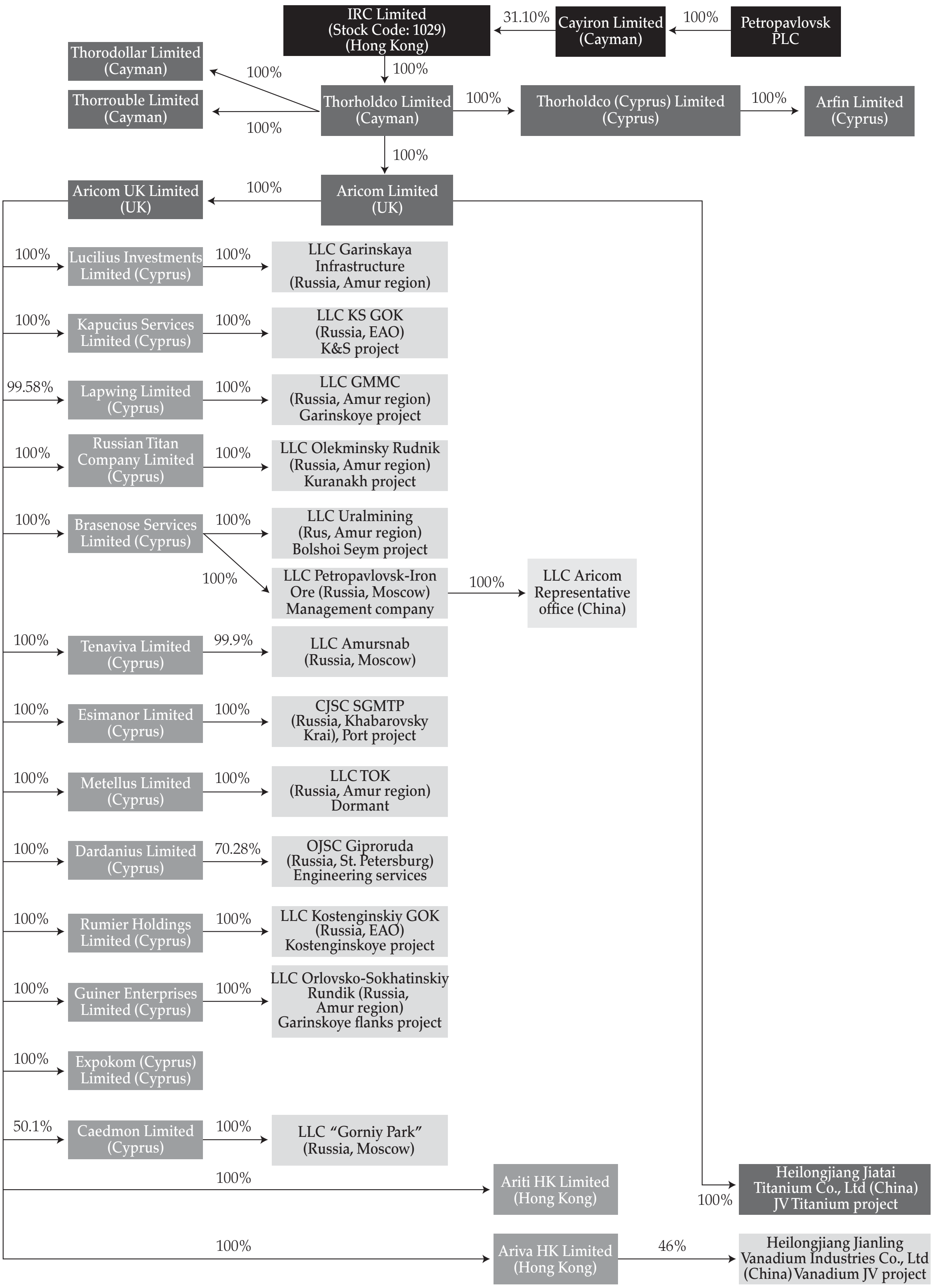
## LIST OF ABBREVIATIONS

| | |
|---|---|
| °C | degrees Celsius, a thermal unit equivalent to Kelvin +273.15 |
| CaO | chemical symbol for calcium oxide or quicklime |
| Fe | chemical symbol for iron |
| $Fe_{magn}$ | total iron in the ore originating from magnetite |
| $Fe_{(total)}$ | total amount of iron content |
| kg | kilogramme, the SI unit of mass |
| km | kilometres, a unit of length equivalent to 1,000 m |
| $km^2$ | square kilometres, a unit of area equivalent to 1,000,000 $m^2$ |
| Kt | thousand tonnes |
| Ktpa | thousand tonnes per annum |
| kV | kilovolts, one thousand volts, a unit of electromotive force |
| Kwh | kilowatt hour, a unit of energy |
| m | metres, the SI unit of length |
| $m^3$ | cubic meter, a unit of volume |
| mm | millimetres, unit of length equivalent to 0.001 m |
| Mt | million tonnes |
| Mtpa | million tonnes per annum |
| mWt | megawatt, one million watts, a unit of power |
| nm | not measured |
| sq.m. | square metre, a unit of area |
| t | a wet metric tonne, a unit of mass equivalent to 1,000 kg |
| tpa | tonnes per annum |
| $TiO_2$ | chemical symbol for titanium dioxide |
| $V_2O_5$ | chemical symbol for vanadium pentoxide |

All dollars refer to United States Dollars unless otherwise stated.

All maps and diagrams in this report are for illustration purposes only and are not to scale.

# CORPORATE STRUCTURE



# CORPORATE INFORMATION

## IRC LIMITED — 鐵江現貨有限公司

Stock Exchange of Hong Kong: 1029

## CORPORATE INFORMATION

Headquarters, registered address and principal place of business in Hong Kong:

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Hong Kong Special Administrative Region
of the People's Republic of China

Telephone: +852 2772 0007
Facsimile: +852 2772 0329
Corporate Website: www.ircgroup.com.hk

Hong Kong Business Registration number: 52399423
Hong Kong Company Registration number: 1464973

## PRINCIPAL PLACE OF BUSINESS IN RUSSIA

Bulvar Entuziastov, Building 2
7/F, Business Center "Golden Gate"
Moscow
109544
Russia

## CHAIRMAN

P.C.P. Hambro

## DEPUTY CHAIRMAN

D.R. Bradshaw

## EXECUTIVE DIRECTORS

Chief Executive Officer: Y.V. Makarov
Chief Financial Officer: D. Kotlyarov

## NON-EXECUTIVE DIRECTORS

P.C.P. Hambro
C.K. Cheng

## INDEPENDENT NON-EXECUTIVE DIRECTORS

D.R. Bradshaw, *Senior Independent Non-Executive Director*
C.F. Li
J.E. Martin Smith
S. Murray, *CBE, Chevalier de la Légion d'Honneur*
R.K.T. Woo

## EMERITUS DIRECTOR

Dr P.A. Maslovskiy

## COMMITTEES OF THE BOARD

### Audit Committee

C.F. Li (Chairman)
J.E. Martin Smith
D.R. Bradshaw

### Remuneration Committee

J.E. Martin Smith (Chairman)
D.R. Bradshaw
C.F. Li

### Health, Safety and Environmental Committee

D.R. Bradshaw (Chairman)
C.F. Li
J.E. Martin Smith

### Nomination Committee

P.C.P. Hambro (Chairman)
D.R. Bradshaw
J.E. Martin Smith

## AUTHORISED REPRESENTATIVES FOR THE PURPOSES OF THE STOCK EXCHANGE OF HONG KONG LIMITED

D. Kotlyarov
J. Yuen

## COMPANY SECRETARY

J. Yuen

# RISK FACTORS

The Group is exposed to a variety of risks and uncertainties which could significantly affect its business and financial results. From the Board, to executive and operational management and every employee, the Group seeks to undertake a pro-active approach that anticipates risk, seeking to identify them, measure their impacts and thereby avoid, reduce, transfer or control such risks.

The Group's view of the principal risks that could impact it for the 2018 and beyond are substantially unchanged from those of the previous years. A summary of these key risks is set out below:

- Operational risks such as delay in supply of/or failure of equipment/services and adverse weather conditions.
- Financial risks such as commodity prices, exchange rate fluctuations, funding and liquidity and capital programme controls.
- Health, safety and environmental risks such as health and safety issues, legal and regulatory risks, licences and permits, restatement of reserves and resources, and non-compliance with applicable legislation.
- Legal and Regulatory risks such as country-specific risks.
- Human Resources risks such as the ability to attract key senior management and potential lack of skilled labour.

This should not be regarded as a complete or comprehensive list of all potential risks that the Group may experience. In addition, there may be additional risks currently unknown to the Group and other risks, currently believed to be immaterial, which could turn out to be material and significantly affect the Group's business and financial results.

# DISCLAIMER

Some statements contained in this document referred to in it are or may be forward-looking statements. Statements reflect the Company's current views with respect to future events and are subject to risks, assumptions, uncertainties and other factors beyond the Company's control that could cause actual results to differ from those expressed in such statements. Although the Company believes that such forward-looking statements, which speak only as of the date of this document, are reasonable, no assurance can be given that they will prove to be correct. Therefore, you should not place undue reliance on these statements. There can be no assurance that the results and events contemplated by the forward-looking statements contained in this document will, in fact, occur. The Company will not undertake any obligation to release publicly any revisions to these forward looking statements to reflect events, circumstances or unanticipated events occurring after the date of this document, except as required by law or by any appropriate regulatory authority. Nothing in this document or in documents referred to in it should be considered as a profit forecast. Past performance of the Company or its shares cannot be relied on as a guide to future performance. This document does not constitute, or form part of or contain any invitation or offer to any person to underwrite, subscribe for, otherwise acquire, or dispose of any shares in IRC Limited or advise persons to do so in any jurisdiction, nor shall it, or any part of it, form the basis of or be relied on in any connection with or act as an inducement to enter into any contract or commitment therefore. In particular, this document and the information contained herein are not an offer of securities for sale in the United States of America. No reliance may be placed for any purpose whatsoever on the information or opinions contained in this document or on its completeness and no liability whatsoever is accepted for any loss howsoever arising from any use of this document or its contents or otherwise in connection therewith. The development and production plans and estimates set out herein represent the current views of the Company's management. The Company's Board reviews the production estimates on an ongoing basis. All planning is subject to available funding and capital allocation decisions. This document is prepared in compliance with Hong Kong law and the courts of the Hong Kong Special Administrative Region of the People's Republic of China will have exclusive jurisdiction over any disputes arising from or connected with this document.

Since 2011, the Company implemented electronic communications to reduce the financial and environmental costs of producing the Annual Report. In this regard we would encourage downloading of reports from our website. Financial reports may be found at: http://www.ircgroup.com.hk/html/ir_report.php

The annual report this year has once again been printed on paper certified by the Forest Stewardship Council.

If a printed copy is preferred, it is available free of charge from the Company, by writing to:

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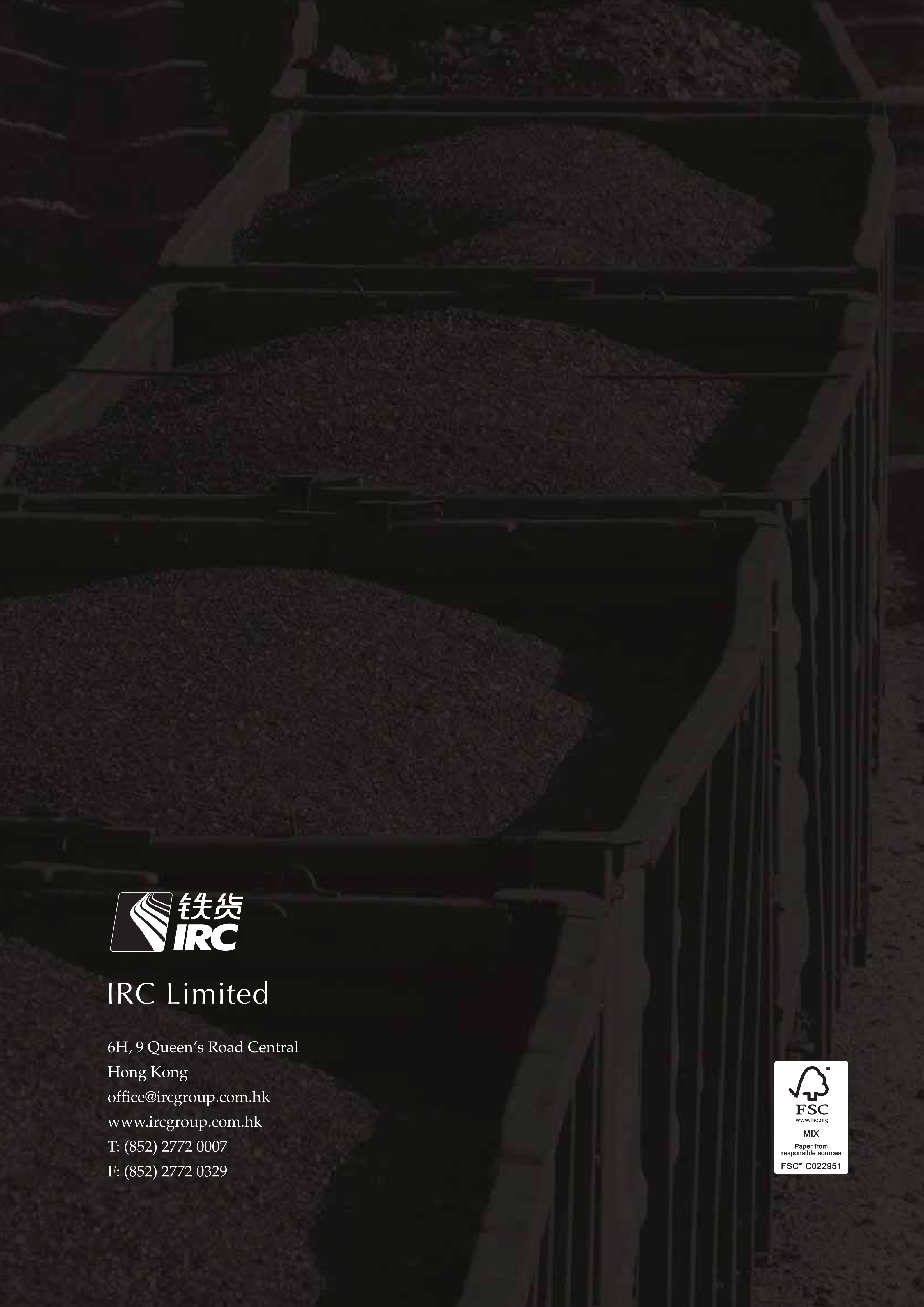
Facebook (facebook.com/pages/IRC-limited)
LinkedIn (linkedin.com/pub/irc-limited)
Twitter (@IRCLimited)

# MILESTONES

| | | |
|---|---|---|
| Our Future | K&S | Full capacity to 3.2mt per year<br>Doubling production (Phase II) |
| | Kuranakh | Restart the mine |
| | Garinskoye | Trial production |
| 2018 | K&S | Entry into refinancing facility with Gazprombank<br>Operated at 105% of designed capacity during 24-hour run<br>Full year produced over 2.2 million tonnes |
| 2017 | K&S | Commercial production (Phase I)<br>90%-capacity Loading Test<br>Full year produced over 1.5 million tonnes |
| 2016 | IRC | Tiger Capital shares subscription |
| | K&S | Trial production commenced and ramp-up<br>First iron ore concentrate production<br>Final hot commissioning and testing |
| 2015 | IRC | Completed fully underwritten Open Offer |
| | K&S | Ongoing commissioning and testing |
| 2014 | K&S | Commissioning Programme commenced |
| 2013 | IRC | General Nice + Minmetals Cheerglory Strategic Alliance |
| | K&S | Ongoing construction |
| 2012 | Kuranakh | Ilmenite production full capacity |
| | Garinskoye | DSO operation announced |
| | Exploration | Ilmenite & Molybdenum<br>Exploration acquisitions |
| 2011 | IRC | Group reserves increase threefold |
| | Kuranakh | Full year production targets exceeded |
| | K&S | First drawdown ICBC facility<br>Optimisation Study to double K&S production |
| 2010 | IRC | HKEx listing |
| | Kuranakh | Commissioned<br>Iron ore production full capacity |
| | K&S | US$340m ICBC facility<br>US$400m CNEEC EPC contract |
| | SRP | First production |



铁货 IRC

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