



HORIZONTE

MINERALS PLC

Annual Report 2019

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Horizonte Minerals

is an AIM and TSX listed
nickel development company
focused in Brazil.

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2019 Highlights

Horizonte Minerals plc (the "Company" or "Horizonte") continued to make solid progress on all fronts during 2019 at both the advanced Araguaia Nickel Project ("Araguaia") as well as the Vermelho Nickel-Cobalt Project ("Vermelho").

Having delivered the Feasibility Study ("FS") for Araguaia in October 2018, the company has made significant advances towards securing the required project finance and advancing the early works in anticipation of commencing construction and ultimately a producing mine.

The FS results confirmed Araguaia as a Tier 1 project with a large high-grade scalable resource, a long mine life and a low-cost source of ferronickel. The Base Case delivered a post-tax net present value ("NPV₀") of US\$401 million and indicates over US\$1.6 billion of free cash flow over the 25-year life of mine.

In January we were awarded the construction licence by SEMAS, the Brazilian Pará State Environmental Agency, for Araguaia. This licence was a major de-risking step for Araguaia and allows construction to begin on the processing plant and associated infrastructure, once financing is secured.

We released results of two sets of test work from Vermelho in the year, showing ore from the project to be amenable to multiple processing routes.

The first batch of test work confirmed that it is possible to produce high grade, commercial specification ferronickel from the saprolite and transition ore at Vermelho. These results confirm the suitability of the proposed conventional Rotary Kiln Electric Furnace process selected for the Company's Araguaia ferronickel project is also suitable for processing Vermelho ore.

In parallel the test work at SGS Lakefield, Canada on limonite samples from Vermelho ore demonstrated the suitability for production of high purity nickel and cobalt sulphate to supply the EV battery markets, with samples of both produced.

August saw the release of the new NI 43-101 Mineral Resource covering the Serra do Tapa deposit, previously acquired from Glencore, with a measured and indicated capacity of 70.3 million tonnes grading 1.22% nickel. This deposit has the potential to be a satellite pit to add further supply to the Araguaia operation and potentially extend the mine life.

Also, in August we were able to announce a US\$25 million royalty agreement with Orion Mine Finance (OMF) to begin development of the Araguaia project. This upfront cash payment was secured in exchange for a royalty on the first 426k tonnes of nickel produced and sold from the project.

In October, we released the Vermelho Prefeasibility Study, demonstrating that the project can be a significant low-cost supplier of nickel in the form of battery grade nickel-sulphate. Over the 38-year mine life using a Base Case nickel price of \$16,400/t, the operation is expected to generate cash flows after taxation of US\$7.3 billion, an IRR of over 26%, and sits on the lower half of the global cost curve.

SUMMARY of 2019 Achievements

Construction Licence awarded for Araguaia Project	January 2019
Tests confirm ability to produce ferronickel from Vermelho's saprolite and transition ore	March 2019
Tests confirm ability to produce nickel and cobalt sulphate from limonite ore at Vermelho	June 2019
Release of NI 43-101 Mineral Resource for the Serra do Tapa deposit & US\$25 million royalty agreement with Orion Mine Finance to begin development of Araguaia	August 2019
Vermelho pre-feasibility study returns NPV of US\$1.7 billion and confirms low cost, long life nickel sulphate.	October 2019

Horizonte Minerals at a Glance

Horizonte wholly owns the advanced Araguaia Nickel Project ("Araguaia"), and the Vermelho Nickel-Cobalt Project ("Vermelho"), located in the south of the Carajás mineral district in northern Brazil. The Araguaia project will utilise the proven RKEF process to produce approximately 50,000 tonnes of ferronickel per year, grading 30% Nickel. A feasibility study for Araguaia was published in October 2018. The study demonstrated the robust economics of Araguaia and places it as one of the lowest-cost new ferronickel development projects globally. The Vermelho project is a nickel cobalt project, located approximately 80 kilometres north west of the Company's Araguaia North ferronickel project. Vermelho was acquired from Vale SA who completed a detailed feasibility study demonstrating the potential to produce over 40,000 tons of nickel per year, prior to giving the go ahead to construct in 2005. A pre-feasibility study representing the economics of developing Vermelho on a smaller scale than Vale's original design was released in October 2019. These two Tier-1 projects located within trucking distance of each other create a large, high-grade flexible resource base with the combined potential to produce 50,000 to 60,000 tonnes of nickel per year.

Araguaia Nickel Project Overview

Araguaia is a construction ready ferronickel project being developed by the Company

- > 100% owned by Horizonte Minerals plc
- > Located south of the Carajás Mining district in Northern Brazil, with good access to infrastructure
- > The base case of the Feasibility Study published in October 2018 assumes a nickel price of US\$14,000/t, and has the following highlights;

Financial:

- > Highly Cash Generative
 - Around US\$1.6B net cash flow
- > NPV of US\$401M
- > Payback of 4.2 years
- > IRR of 20.1%
- > Low Capital Intensity – US\$443M
 - Capital Cost equates to US\$31,000 /t Ni pa
- > C1 Cost of US\$8,193/t Ni

Mining:

Shallow open pit mining will be used for the exploitation of the nickel rich saprolite and transition zones. Ore will be sourced from 8 open pits, with a targeted 0.9mt per annum of ore to a central processing and smelting facility. A 28-year production schedule is envisaged with a 2 - 3 year construction period followed by ramp up over 13 months to full scale commercial production.

Process:

The selected metallurgical process is the widely used and proven Rotary Kiln Electric Furnace (RKEF) technology. There are over 40 operations using this process worldwide and it accounts for over 50% of all nickel produced today. A successful pilot campaign produced high grade commercial quality ferronickel from the bulk samples deemed representative of the Araguaia ore.

Vermelho Nickel Cobalt Project Overview

Acquired from Vale SA in early 2018, Vermelho is a Tier-1 asset in terms of size and grade, sitting on the upper end of the global grade curve. Drilling programmes totalling 152,000 metres and detailed engineering studies have been completed on the project by Vale and this high quality advanced work provides Horizonte a fast-track pathway to advance the project.

In 2019 the company conducted metallurgical testwork and produced a prefeasibility study on the project, showing its potential to be a profitable, future supplier of battery grade nickel and cobalt to the world market.

Financial:

- > Cash generative – Around US\$7.3B net cash flow
- > NPV of US\$1.7B
- > Payback of 4.2 years
- > IRR of 26.3%
- > Low Capital Intensity – US\$652M Capital Cost equates to US\$26,080 /t Ni pa
- > C1 Cost of US\$8,020/t Ni

Mining:

Mining at Vermelho is planned to be undertaken with conventional open pit truck and excavator mining methods. Blasting will be necessary for the upper parts of the deposit. Waste overburden will be stripped on 4 m benches, and ore on 2 m benches for additional selectivity. The mine production schedule targeted a processing rate of 1 Mt/a HPAL feed for the first three years and a doubling in capacity thereafter to 2 Mt/a.

Process:

The process selected for the Project is the production of a nickel and cobalt sulphate product via HPAL (high pressure acid leach), mixed sulphide precipitation ('MSP'), pressure oxidation leaching ('POX'), cobalt solvent extraction ('CoSX') and crystallization.

The compelling economic and technical results from the study support further development of the project towards a full Feasibility Study;

The close proximity of the Vermelho and Araguaia projects have allowed the Company to consolidate a major district in Brazil's Pará state, growing its nickel resources by over 600% in just six years, resulting in two Tier-1, scalable, high-grade nickel deposits.

Our Year in Review

Jan 2019

Approved the Construction Licence for Araguaia ferronickel project

Mar 2019

Positive Metallurgical Testwork Results for Vermelho Nickel Cobalt Project

June 2019

Successful completion of the previously announced testwork on samples owned by Vermelho nickel project

July 2019

Power utilisation permit for the Araguaia ferronickel project

August 2019

Initial NI 43-101 Mineral Resource Estimate for the Serra do Tapa nickel deposit.

Closed a US\$ 25 million Royalty funding with Orion Mine Finance

October 2019

Appointed Project Director to lead the construction of the Araguaia ferronickel project.
Vermelho Pre-Feasibility Results

December 2019

Updated the Corporate Social Responsibility policies

Chairman's Statement David J Hall

Dear Shareholders

Late 2019 and early 2020 has thrown up a number of global challenges: Firstly, the continuation of the US China trade war; and secondly, the more serious challenge of the Covid-19 virus. The effects of the virus on global trade and commodities have been unprecedented, oil prices have seen their largest decline recorded in history and the S&P500 posting its worst daily performance since December 2008. This will all have a knock-on effect in the short term for nickel markets and in the mining project finance arena. Despite the current market volatility, the Company has a strong cash position of £17.8 Million, one of the lowest cost nickel development projects globally, and a strong shareholder base. Our team remains focused on the execution of our plans to begin construction at Araguaia and complete the next stage of the feasibility study at Vermelho. The Company will continue monitor the situation closely and adapt its business strategy to the market conditions.

The year 2019 saw some major steps taken for us as a company as we continued to progress two of the most exciting nickel projects in the global pipeline. Araguaia, a project that we have developed from a grassroots exploration discovery through to being construction ready, is now at the funding stage. It will be a key source of high grade ferronickel for the stainless steel markets in the future. Vermelho, meanwhile, has now got a Pre-Feasibility Study behind it, and looks set to benefit from the significant growth in the electric vehicle market given the battery grade nickel and cobalt product it will produce and the timing at which it will come in to production. In parallel to the development of the projects, the fundamentals around the nickel market are robust. Nickel was the best performing metal on the LME during 2019, with the price rising by more than 34%, closing the year at the US\$14,000/t mark.

Despite the current challenging global environment, we continue to work on the various workstreams required to achieve our stated goals, including advancing Araguaia to the "construction-ready" phase and progressing the financing process. There is a possibility that the effects of Covid-19 might result in a delay to the project finance process however the nickel market fundamentals remain robust for the medium-term and aligned with the planned start of production at Araguaia.

On the ground in Brazil, our team is well prepared to continue their work while at the same time ensuring the safety of those in our employ as a top priority. We have implemented strict health and safety policies specifically tailored to Covid-19.

We announced important news on both projects during the course of 2019, securing significant funding for Araguaia via a royalty agreement with Orion Mine Finance (OMF), while producing a prefeasibility study at Vermelho that showed robust economics for our second 100% owned project.

The timeline to development of our projects is well timed to match an expected increase in demand for nickel, due to continued stainless steel growth and the emerging, but fast-growing, demand from the electric vehicle market. During 2019 market sentiment around a pending Indonesian nickel ban, caused a sharp price increase and major reduction in nickel inventories during the year. This has since reversed due in part to the effects of the Covid-19. The nickel market that has seen a lack of investment over recent years, combined with a pending uptick in demand, align well for the development of Araguaia.

There remains a significant concern amongst many market commentators and end users of nickel regarding the future availability of supply, especially with the anticipated widespread adoption of Electric Vehicles and the impact this is likely to have on already constrained nickel supplies.

Wood Mackenzie has previously forecast a long-term incentive price of \$19,800/t Ni, which represents the price environment which would incentivise enough production to come online to satisfy expected future demand. Due to their quality, Horizonte's two projects provide strong returns at prices well below this incentive and are therefore well positioned to help contribute to the envisioned supply gap.

Additionally, the long-term consensus pricing for nickel remains around \$16,400/t Ni which shows some further upside to the current price environment. These positive forecasts continue to roll in with Bank of America Merrill Lynch recently tipping nickel prices of US\$17,375/t next year and US\$20,000/t the year after.

Chairman's Statement continued

Conclusion

We continue to believe that Horizonte is uniquely placed to benefit from the improving nickel market fundamentals, driven by the robust market for stainless steel combined with the fast growing EV market.

Achieving this benefit requires a management team capable of jointly progressing these projects towards production from a technical and regulatory point of view, while, at the same time, creating the relationships in the investor community to access the funding to develop them.

This year the team has once again proved themselves on both accounts, advancing Araguaia and Vermelho at a rapid rate, while bringing OMF on board as a financing partner, with its US\$25 million investment in the Araguaia royalty.

On behalf of the Board, I would like to thank management for its contribution to another successful year. I would like to say thank you to the shareholders for your continued support as we look forward to updating the market on further positive developments as during 2020.



David J Hall
Chairman
7 April 2020

Operations Review – Araguaia Nickel Project

Jeremy Martin

Horizonte Minerals (the Company) is developing its 100% owned Araguaia Nickel Project (Araguaia) as Brazil's next major ferronickel mine. Araguaia is a Tier 1 mining project with a high-grade scalable resource, located south of the Carajás Mining District in the Pará State, north east Brazil. The area has a well-developed infrastructure, including roads, rail, and hydroelectric power as a result of the sustained mining activity in Carajás.

The Feasibility Study (FS), comprises an open pit nickel laterite mining operation that delivers ore from a number of pits to a central rotary kiln electric furnace (RKEF) metallurgical processing facility. The metallurgical process comprises a single line (RKEF) to extract FeNi from the ore. After an initial ramp-up period, the plant will reach a full capacity of approximately 900,000 tonnes of dry ore feed per year to produce 52,000 tonnes of ferronickel (FeNi), in turn containing 14,500 tonnes of nickel per year. The FeNi product will be transported by road to the port of Vila do Conde in the north of the State for sale to overseas customers.

Highlights of the Stage 1 Feasibility Study are:

- > At the assumed base case Nickel price of US\$14,000/t, the project delivers cash flows after taxation of US\$1.6 billion, from a 28-year mine life, with sufficient Mineral Resources to extend beyond 28 years;
- > Estimated post-tax Net Present Value¹ ('NPV_g') of US\$401 million and Internal Rate of Return ('IRR') of 20.1% using the base case nickel price forecast of US\$14,000/t;
- > Upon development the Project is expected to produce an average of 14,500 tonnes of nickel per year contained within approximately 52,000 tonnes FeNi per annum, utilising the proven RKEF technology currently used at over 40 mines around the world;
- > C1 (Brook Hunt) cash cost of US\$3.72 per pound ('/lb') of nickel (US\$8,193/t), making Araguaia a low-cost producer relative to its peers.
- > Using the consensus mid-term nickel price of US\$16,800/t, the post-tax NPV_g increases to US\$740 million with an IRR of 28.1%, reflecting the significant leverage that the Project returns have to any future increase in nickel prices;
- > Capital cost estimate of US\$443 million (AACE class 3), including US\$65.3 million of contingencies and growth equating to 17.2% of total capex budget;
- > Araguaia is set to deliver significant socio-economic benefits for communities in the Pará state, including over 1,000 direct jobs in the construction phase, and around 500 jobs during operation, as well as additional economic and social development programs.

¹ NPV calculated using 8% discount rate.

A key part of the FS Stage 1 Project design was that the RKEF plant and associated infrastructure was designed to accommodate the addition of a second RKEF process line (Stage 2 expansion), which is intended to double Araguaia's production capacity from 14,500 t/a nickel up to 29,000 t/a nickel. The Project Mineral Resource inventory has the grade and scale to support the increase in plant throughput from 900 kt/pa (Stage 1) to the Stage 2 rate of 1.8 Mt/a supporting the twin line RKEF flow sheet. The Stage 2 expansion assumes operating at Stage 1 production rate of 900 kt/pa for three years, after which free cash flows would be reinvested to expand the plant to 1.8 Mt/pa by the addition of a second line.

Highlights of the Stage two expansion¹ Scenario are:

- > The Stage 2 expansion, assumed in year 3 of operation, supports a 26-year mine life generating cash flows after taxation of US\$2.6 billion;
- > No increase in the initial capital cost which remains at the same level at the FS Stage 1 of US\$443 million, the Stage 2 expansion is financed through operational cash flow;
- > Estimated post-tax NPV₈ of US\$741 million and IRR of 23.8% using the base case nickel price forecast of US\$14,000/t;
- > Using a nickel price of US\$11,000/t generates cash flows after taxation and payback of capital of US\$1.0 billion;
- > Nickel grade of 1.82% for the first 10 years of the Stage 2 operation;
- > Annual nickel production of approximately 29,000 t/a;
- > C1 (Brook Hunt) cash cost year 1 to Year 10 of US\$3.00 per pound ('/lb') of nickel (US\$6,613/t), making Araguaia a low-cost producer. Life of mine C1 cash cost of US\$3.51 per pound ('/lb') of nickel (US\$7,737/t); and
- > Using the consensus mid-term nickel price of US\$16,800/t, the post-tax NPV₈ for the Stage 2 option increases to US\$1,264 million with an IRR of 31.8%.

The economic and technical results from the FS have been utilised as the basis for advancing project financing, offtake agreements and other investment discussions with the aim of securing a project finance package to enable the construction of the Araguaia project at a time of expected growth in demand for nickel.

Orion Royalty Financing

In August 2019, the Company agreed a royalty financing arrangement from Orion Mine Finance ("OMF") for a \$25 million investment into the Araguaia project. OMF has a strong track record in financing successful mining projects and has deployed approximately US\$1.5 billion in royalties, streams, debt and equity over the past 3 years. The upfront payment of \$25 million was in exchange for a royalty applied to the first 426,429 tonnes of contained nickel within the final product produced and sold. This is equivalent to the nickel production estimated over the life of mine for Araguaia in the Stage 1 Feasibility Study.

Securing this royalty with OMF, one of the largest mining finance groups in the marketplace today with approximately \$5.1 billion under management, was an important milestone for the Company as it means that OMF has validated the investment proposition and it secures a long term partnership for the Company with a large financing partner.

This royalty financing is non-dilutive for shareholders, and has been pre-designed to be compatible with the project funding package and was secured with the intention of advancing the project towards the completion of the complete Project Finance investment. The funds secured enable the Company to further build out the owner's team, advance engineering and early works packages and proceed towards the start of full construction at Araguaia.

¹ The Stage 2 expansion case was developed to a scoping study level of accuracy

Project finance

The Company is working with Endeavour Financial (a leading PF advisory group) to provide advice during the project finance process with a focus on the debt and offtake package for Araguaia. Endeavour Financial is a well-regarded firm with a strong track record of success in the mining industry, specialising in arranging multisource financing for single asset development companies, an example being the recently closed US\$750 million financing package for Lundin Gold's Fruta del Norte project in Ecuador.

The Company is advanced in its negotiations with respect to securing its desired project finance package and indications received to date imply that a debt ratio of 60–65% of the total required investment is achievable. Discussions are proceeding with 5 international banks as well as several Brazilian banks, who have all expressed their interest in forming part of the lending group. In addition to the commercial debt, the Company has been negotiating with several government backed, export and import linked credit agencies, which, if secured, could lead to longer tenor and lower interest rates.

Good progress has been made on the negotiations with potential off takers, with numerous expressions of interest having been received.

The Company is working towards securing a complete project finance package, comprising offtake, debt, ECA as well as equity. All areas of the financing package are progressing well, but due to the recent Covid-19 travel restrictions and social distancing measures in force throughout the world, it is realistic to expect the process could be delayed.

Owners team

Following the agreement with OMF, the Company has expanded its operational team to ensure we have the inhouse capability to manage the construction of the Araguaia Project. This was led by the appointment of Pedro Rodrigues dos Reis ('Mr Rodrigues') in a non-board position as Project Director to lead the construction team.

Mr Rodrigues is a qualified Civil Engineer with over 30 years' experience in capital infrastructure projects in the mining industry, principally in Brazil, Chile and Peru. He has a wealth of mining project experience having worked for both EPCM engineering companies and owner's project execution teams. His most recent roles as part of Senior team of Jacob's Engineering Group for Latin America involved the execution of a number of projects from feasibility through to construction. Prior to this he was Project Director for MMG Limited where he led the construction of the US\$7 billion Las Bambas copper Project in Peru, which was delivered successfully and brought into production ahead of schedule and under budget. He has worked across a variety of commodities, and has managed multiple EPCM's, for major and junior companies such as Minsur/Marcobre, MMG and Newmont Mining. As a Brazilian national with almost two decades of international experience, Mr Rodrigues brings a unique mix of skills and expertise to lead the construction of Araguaia.

Vermelho Nickel-Cobalt Project

The Company's 100% owned Vermelho Nickel-Cobalt ("Vermelho") project was acquired from Vale in early 2018, it is located in the eastern part of the Carajás mining district and approximately 180 kilometres north west of the Company's Araguaia project.

During the year the Company completed and filed a Pre-Feasibility Study for the Vermelho project the results of which are summarised below:

Highlights:

- The Study confirms Vermelho as a large, high-grade resource, with a long mine life and low-cost source of nickel sulphate for the battery industry;
- The economic and technical results from the study support further development of the project towards a full Feasibility Study;
- A 38-year mine life estimated to generate total cash flows after taxation of US\$7.3 billion¹;
- An estimated Base Case post-tax NPV₀ of US\$1.7 billion² and IRR of 26%;
- At full production capacity the Project is expected to produce an average of 25,000 tonnes of nickel and 1,250 tonnes of cobalt per annum utilising the High-Pressure Acid Leach process;
- The base case PFS economics assume a flat nickel price of US\$16,400 per tonne ('/t') for the 38-year mine life;
- C1 (Brook Hunt) cash cost of US\$8,020/t Ni (US\$3.64/lb Ni), defines Vermelho as a low-cost producer amongst its peers.
- Initial Capital Cost estimate is US\$652 million (AAEC class 4), including US\$97.7 million of contingencies (equating to approximately 18% of capital); and
- Vermelho is set to deliver significant socio-economic benefits for communities in the Pará state, including over 1,800 direct jobs in the construction phase, and over 600 jobs during operation, as well as additional economic and social development programs.

¹ At a nickel price of \$US16,400/t, a cobalt price of US\$34,000 and includes a Nickel Sulphate premia of \$US2,000/t of Nickel Sulphate produced. These calculations were made using USD/BRL 1/3.8 exchange rate applied for life-of-mine

Vermelho Pre-Feasibility Study - Detailed Information and Project Summary

The Project comprises a planned 38 year mining operation with an open pit nickel laterite mine that extracts a 141.3 million tonne (Mt) Probable Mineral Reserve (at a cut-off of 0.7% Ni) to produce 924,000 tonnes of nickel contained in nickel sulphate, 36,000 tonnes of cobalt contained in cobalt sulphate and a saleable by-product, kieserite (a form of fertiliser) of which 4.48 Mt are produced. The Vermelho project will utilise a hydro-metallurgical process comprised of a beneficiation plant where ore is upgraded prior to being fed to a High-Pressure Acid Leach (HPAL) and refining Plant which produces the sulphates. The plant will be constructed in two phases, with an initial capacity of 1 Mt per annum (Mt/a) autoclave feed (Stage 1), then after three years of production, a second process train (Stage 2 Expansion) will be constructed effectively doubling the autoclave feed rate to 2 Mt/a. The Stage 1 plant and project infrastructure will be constructed over a 31-month period. The nickel and cobalt sulphate products will be transported by road to the port of Vila do Conde (the same facility planned for Araguaia) for sale to overseas customers. The kieserite will be transported to consumers within Pará state.

The engineering has been developed for the process plant, mining, infrastructure and utilities to support capital ('capex') and operating expenditure ('opex') estimates to an Association for the Advancement of Cost Engineering (AACE) class 4 standard. This means that capex and opex estimates have a combined accuracy of between -25% and +20% at a confidence level of 50%. The capex and opex are dated Q2 2019 and are exclusive of future escalation.

The results of the PFS demonstrate that Vermelho shows positive economics (Table 1, below).

Table 1: Key Feasibility Study Project Economic Indicators (post taxation)

Item	Unit	Nickel price basis (US\$/t Ni)**	
		Base Case 16,400	Long Term 19,800
Net cash flow	US\$ M	7,304	9,546
NPV _g	US\$ M	1,722	2,373
IRR	%	26.3%	31.5%
Breakeven (NPV _g) nickel price	US\$/t	7,483	7,483
C1 cost (Brook Hunt)	US\$/t Ni	8,029	8,029
C1 cost (Brook Hunt) years 1–10	US\$/t Ni	7,286	7,286
Production year payback	years	4.2	3.6
LOM nickel recovered	kt	924.0	924.0
LOM cobalt recovered	kt	46.61	46.61
LOM kieserite produced	kt	4,482	4,482
LOM Total revenue	US\$ M	19,034	22,175
LOM Total costs	US\$ M	11,729	12,629
Operating cash flow	US\$ M	8,451	10,693
Capital intensity – initial capex/t Ni	US\$/t Ni	635	635

Note: ** US\$2,000/t premium for battery sulphate production has been added to Nickel revenue, US\$34,000/t for the cobalt produced as cobalt sulphate, and a net revenue of US\$100/t of the by-product, kieserite.

The economic model assumes 100% equity, providing the opportunity for increased returns leveraging commercial or other debt. The base case was developed using a flat nickel price of US\$16,400/t Ni. An alternate case using the Wood Mackenzie long term Nickel price of US\$19,800/t Ni was also developed.

As shown in Table 1 (above), for the base case the project has a 4.2-year payback period with cumulative gross revenues of US\$19,034 million. The economic analysis indicates a post-tax NPV_g of US\$1,722 million and an IRR of 26.3% using the base case forecast of US\$16,400/t Ni, this increases to US\$2,373 million and 31.5% when using the Wood Mackenzie long term price of US\$19,800/t Ni.

Operations Review continued

Resources / Reserves and Mining

The Vermelho nickel deposit consist of two hills named V1 and V2 (after Vermelho 1 and Vermelho 2), aligned on a northeast-southwest trend, overlying ultramafic bodies. A third ultramafic body, named V3, also located in the same trend lies on flat terrain, southwest of V2. The ultramafic bodies have had an extensive history of tropical weathering, which has produced a thick profile of nickel-enriched lateritic saprolite at V1 and V2.

The Vermelho area was explored in various stages by Companhia Vale do Rio Doce ('Vale') from 1974 to 2004 involving approximately 152,000 m of combined drilling and pitting. The drilling density was substantially enhanced in 2002 to 2004, with the majority of the resource upgraded to the Measured category as defined in JORC (2004) and CIM Definition Standards (2014). Pilot plant metallurgical studies were conducted in Australia focused on the HPAL processing method. A PFS was prepared in 2003, and a Feasibility Study ('FS') was completed in August 2004 by GRD-Minproc (2005). This study confirmed the positive economics supporting the outcomes obtained in previous studies and showed production capacity of 46,000 tonnes per annum (t/a) of metallic nickel, and 2,500 t/a of metallic cobalt. The Vermelho project was given construction approval by Vale in 2005 however later that year Vale elected to place the project on hold after Vale acquired Canadian nickel producer Inco.

Mineral Resources

Snowden Mining and Industry Consultants ('Snowden') were commissioned by the Company to produce the Geology and Mineral Resources sections of the PFS for the Project.

Within the mining licence, at a cut-off grade of 0.7% Ni, a total of 140.8 Mt at a grade of 1.05% Ni and 0.05% Co is defined as a Measured Mineral Resource and a total of 5.0 Mt at a grade of 0.99% Ni and 0.06% Co is defined as an Indicated Mineral Resource. This gives a combined tonnage of 145.7 Mt at a grade of 1.05% Ni and 0.05% Co for Measured and Indicated Mineral Resources. A further 3.1 Mt at a grade of 0.96% Ni and 0.04% Co is defined as an Inferred Mineral Resource at a cut-off grade of 0.7% Ni.

The Mineral Resource is summarised in Table 2.

Table 2 V1 + V2 – combined classified Mineral Resource report for Vermelho above 0.7% Ni cut-off within the mining licence

Classification	Tonnage (Mt)	Ni %	Ni metal (kt)	Co %	Co metal (kt)	Fe ₂ O ₃ %	MgO ₂ %	SiO ₂ %
Measured	140.8	1.05	1,477	0.05	74.6	31.1	11.3	41.0
Indicated	5.0	0.99	49	0.06	2.8	26.3	8.6	49.0
Measured + Indicated	145.7	1.05	1,526	0.05	77.3	30.9	11.2	41.3
Inferred	3.1	0.96	29	0.04	1.4	24.0	15.5	42.2

Notes

1. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. All figures are rounded to reflect the relative accuracy of the estimate and have been used to derive subtotals, totals and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, Snowden does not consider them to be material.
2. Mineral Resources are reported inclusive of Mineral Reserves.
3. The reporting standard adopted for the reporting of the Mineral Resource estimate uses the terminology, definitions and guidelines given in the CIM Standards on Mineral Resources and Mineral Reserves (May 2014) as required by NI 43-101.
4. Mineral Resources are reported on 100% basis for all Project areas.
5. Snowden completed a site inspection of the deposit by Mr Andy Ross FAusIMM, an appropriate "independent qualified person" as such term is defined in NI 43-101.
6. kt = thousand tonnes (metric).

Mineral Reserves

Mineral Reserves were prepared for the Project as part of the PFS, using the CIM Definition Standards (2014).

In accordance with the CIM Definition Standards on Mineral Resources and Mineral Reserves (as adopted and amended), Mineral Reserves are classified as either "Probable" or "Proven" Mineral Reserves and are based on Indicated and Measured Mineral Resources only in conjunction "estimation of Mineral Resource and Mineral Reserve best practice guidelines" as provided by the CIM. No Mineral Reserves have been estimated using Inferred Mineral Resources.

All economic Measured and Indicated Resources within the pit designs were classified as Probable Reserves. A summary of the Mineral Reserves is provided in Table 3.

Table 3 Open pit Mineral Reserves reported as of October 2018

Value	Probable
Ore (Mt)	141.3
Ni (%)	0.91
Co (%)	0.052
Fe (%)	23.1
Mg (%)	3.81
AI (%)	0.79

Notes

1. Cut-off varies by resource model block depending on individual block geochemistry, however, as a guide the cut-off is approximately 0.5% Ni.
2. A site inspection was completed four occasions between March 2017 and September 2019 by Mr Anthony Finch P. Eng. MAusIMM (CP Min.), an appropriate "independent qualified person" as such term is defined in NI 43-101.

Mining

Snowden was commissioned by the Company to produce the mining plans of the PFS.

Mining at Vermelho is planned to be undertaken with conventional open pit truck and excavator mining methods. Blasting will be necessary for the upper parts of the deposit. Waste overburden will be stripped on 4 m benches, and ore on 2 m benches for additional selectivity.

Reverse circulation ('RC') grade control drilling will be completed at 12.5 m x 12.5 m spacing to define the waste/ore/ore type boundary ahead of mining.

Waste will be stored in dumps adjacent to the pits. Ore will be transported to the run of mine ('ROM') stockpile near the processing plant or the low-grade stockpiles for later processing.

Due to the wet season, mining (including stockpile rehandling) will be reduced between October and March (as is standard practice in the region). It was assumed that a fleet of Scania G500 8x4 22 m³ heavy tippers will be used as part of the fleet and coarse beneficiation rejects will be used as sheeting, to mitigate trafficability issues.

The mine production schedule targeted a processing rate of 1 Mt/a HPAL feed for the first three years and a doubling in capacity thereafter to 2 Mt/a. To facilitate this, ROM feed of approximately 2.25 Mt/a to 4.5 Mt/a is required as well as an acid production capacity of 350 kt/a to 700 kt/a.

The annual mining rate starts at 8 Mt/a and peaks at 12 Mt/a between production years 5 and 11. Strip ratios for the deposit are extremely low (0.14 Waste:Ore) consequently waste dumps are relatively small.

The mine supplies higher grade ore in the early mine life to the HPAL circuit, reaching up to 2% Ni and 0.1% Co in the first four production years. The HPAL feed grade (after beneficiation) is above 1.5% Ni and 0.08% Co for the majority of the first 17 years of production and decreases over the remaining LOM as feed is sourced from large lower grade stockpiles that are to be developed in the early years and are processed in the later years.

Operations Review continued

Processing

The process plant design, along with capital and operating cost estimates were completed by Stimulus (Engineers) Pty Ltd, Perth Australia ('Stimulus'). Stimulus is a specialist in nickel and cobalt laterite project metallurgical testwork, piloting and process design.

The process selected for the Project is the production of a nickel and cobalt sulphate product via HPAL, mixed sulphide precipitation ('MSP'), pressure oxidation leaching ('POX'), cobalt solvent extraction ('CoSX') and crystallization. Prior to the HPAL process, barren free silica is removed from the ore via a beneficiation process which involves crushing, scrubbing, washing and separation by screening and hydrocyclones. To avoid accumulation of magnesium sulphate in the recycled process water, a portion is sent to the kieserite (magnesium sulphate monohydrate, $\text{MgSO}_4 \cdot \text{H}_2\text{O}$) crystallization area where kieserite is recovered and crystallised for potential sale as fertiliser.

The process plant has been designed to process 4.34 Mt/a of ROM ore at 1.07% Ni. Of this total feed, 2.34 Mt/a is rejected as coarse, low grade siliceous waste from the beneficiation plant. The 2 Mt/a beneficiated product at 1.85% Ni grade is then fed to the HPAL processing plant as upgraded feed (1 Mt/a per train). A common refining circuit treats the MSP produced from each train via POX, CoSX and crystallization.

The proposed process plant has been designed to recover 94.4% and 94.9% of the nickel and cobalt from the HPAL feed at an acid consumption of 347 kg/t. The nickel and cobalt sulphate products are of high purity suitable for sale directly into the battery market. The kieserite by-product is of appropriate quality to be sold to the local fertiliser market.

Extensive metallurgical testwork and process design was undertaken on the Project by the former owner, Vale, at scoping, prefeasibility and feasibility stages, included drilling and pitting programs totalling 152,000 m, variability batch testwork, full-scale pilot testwork and detailed engineering studies. A five-year, exhaustive, metallurgical testwork and pilot plant program demonstrated that a high degree of mined ore upgradable using a simple beneficiation processes was possible. The resultant feed delivered 96% average leach extraction for nickel and cobalt via HPAL technology.

Additional testwork has been completed by the Company during 2018 and 2019. This testwork on selected samples from Vermelho validated the potential to produce high-grade sulphate products using the HPAL process.

The 6,000 plus samples totalling over 160t used for PFS and Final Feasibility Study (FFS) piloting were large diameter drill core and were representative (geographically, of depth, ore type and by lithology). Additionally, 10% of the samples (1 m from every 10 m) was used for variability testing so piloting and variability were related.

Financial Evaluation

Capital Cost

The estimate is based on the AACE class 4 standard, with an estimated accuracy range between -25% and +20% of the final project cost (excluding contingency).

The largest capital item is the HPAL plant. In order to manage initial capital, this is constructed in two phases. The first phase (Stage 1) has a capacity of 1 Mt/a autoclave feed. Stage 2 is brought online in year 3 of production and effectively doubles the HPAL feed rate to 2 Mt/a.

The capex estimate includes all the direct and indirect costs, local taxes and duties and appropriate contingencies for the facilities required to bring the Project into production, including the process plant, power line, water pipelines and associated infrastructure as defined by the PFS. The estimate is based on an Engineering Procurement and Construction Management ('EPCM') implementation approach and this is the contracting strategy expected to be utilised for the Project.

The total estimated initial (pre-production) capex for the Vermelho project is US\$652.2 million (after tax, including contingency, excluding growth and escalation). A summary of the capex is shown in Table 4.

Table 4: Summary of capex

Capital cost component	Initial (US\$ M)	Train 2 (year 3) (US\$ M)	Remainder (US\$ M)	LOM (US\$ M)
Process plant	575.06	446.68	—	1,022
Mining pre-production	10.78	—	—	10.78
Tailings and sediment	24.12	—	—	24.12
Pumping	2.34	—	—	2.34

Capital cost component	Initial (US\$ M)	Train 2 (year 3) (US\$ M)	Remainder (US\$ M)	LOM (US\$ M)
Powerline	14.16	—	—	14.16
Road	2.59	—	—	2.59
Permitting and land acquisition	23.19	—	—	23.19
Mining sustaining	—	—	21.58	21.58
Other sustaining (including land permitting and land)	—	—	1.33	1.33
Closure	—	—	29.37	29.37
TOTAL	652.24	446.68	52.28	1,151

The costs in Table 4 include all direct and indirect costs including owners costs, supply, shipping and site installation. The total contingency carried in the capex is US\$97.7 million, this represents 18% of the initial capex (excluding contingency) and 25% of the plant direct costs.

Operational costs

The operating costs shown in Table 5 (below) represent the average over the LOM; actual costs for these vary from year-to-year depending on the fixed and variable costs as well as sustaining capital requirement for the given year. The operating costs cover the mine, process plant, ore preparation, social and environmental, royalties and general and administrative costs. The main contributors of the overall operating costs are power, sulphur, (for acid and power production) labour and mining costs, with additional consumables and other indirect costs, including G&A.

Table 5: Summary of opex

Area	LOM total (US\$ M)	US\$/t nickel**	US\$/t ore	Average annual (US\$ M)
Mining	981	1,062	6.94	25.81
Rejects and tails handling	414	448	2.93	10.89
Processing costs	5,785	6,261	40.93	152.23
Royalties (CFEM)	23	25	0.16	0.60
Royalty (Vale)	66	72	0.47	1.74
G&A and other costs	215	233	1.52	5.67
SHE	24	26	0.17	0.63
TOTAL	7,508	8,126	53.13	197.57

Summary Economics

The financial model is based on 100% equity. The Base Case was developed using a flat nickel price of US\$16,400/t Ni for LOM. The second case was prepared using the Wood Mackenzie long term price of US\$19,800/t Ni.

The revenue breakdown by product is shown in Table 6.

Table 6: LOM Revenue by product

Revenue by product	LOM Revenue (US \$M)**	% of total
Ni Sulphate	17,001	89%
Co Sulphate	1,585	8%
Kieserite	448	2%
	19,034	100%

Note: ** A US\$2,000/t Ni premium for battery sulphate production has been added to Nickel revenue, US\$34,000/t for the cobalt produced as cobalt sulphate, and a net revenue of US\$100/t of the by-product, kieserite

Operations Review continued

As shown in Table 1, the post taxation model for the Base Case has a 4.6-year payback period with cumulative gross revenues of US\$19,034 million. The economic analysis indicates a post-tax NPV of US\$1,722 million and an IRR of 26.3% using the Base Case of US\$16,400/t Ni. These figures increase to US\$2,373 million and 31.5% when using the Wood Mackenzie long term price of US\$19,800/t Ni. Table 7 shows the pre-taxation results.

Table 7: Project economic performance (pre-taxation)

Item	Unit	Nickel price basis (US\$/t Ni)**	
		Base Case (consensus) 16,400	WM Long Term 19,800
Net cash flow	US\$ million	10,379	13,509
NPV _g	US\$ million	2,342	3,185
IRR	%	28.8%	34.5%
Breakeven (NPV _g) Ni price	US\$/t	6,946	6,946
C1 Cost (Brooke Hunt)	US\$/t	8,029	8,029
Production year payback	Years	4.0	3.5
Cash costs	US\$ million	7,508	7,520
Operating cash flow	US\$ million	11,526	14,655

Note: ** US\$2,000/t premium for battery sulphate production has been added to Nickel revenue, US\$34,000/t for the cobalt produced as cobalt sulphate, and a net revenue of US\$100/t of the by-product, kieserite.

Sensitivity Analysis

The sensitivity analysis demonstrates how the NPV_g is affected by changes to one variable while holding the other variables constant. The results of the sensitivity analysis are presented in Table 8 and Figure 1.

Table 8: Sensitivity table for the Base Case (US\$16,400/t) NPV_g after taxation

Sensitivity parameter	-30%	-20%	-10%	0%	10%	20%	30%
Price/Grade/Recovery of Ni	661	1,016	1,369	1,722	2,074	2,427	2,779
Price/Grade/Recovery of Co	1,617	1,652	1,687	1,722	1,757	1,792	1,827
Net revenue from kieserite	1,693	1,703	1,712	1,722	1,731	1,741	1,751
Pre-Production Capital	1,873	1,823	1,772	1,722	1,671	1,621	1,570
Stage 2 Capital	1,802	1,775	1,749	1,722	1,695	1,668	1,642
Mining Cost	1,799	1,773	1,748	1,722	1,696	1,670	1,645
USD:BRL FX Rate	1,535	1,613	1,674	1,722	1,761	1,794	1,821
Sulphur Price	1,911	1,848	1,785	1,722	1,659	1,596	1,532
Power Cost	1,735	1,730	1,726	1,722	1,718	1,713	1,709
Discount Rate	2,523	2,217	1,952	1,722	1,521	1,345	1,189
Beneficiation Efficiency	1,298	1,439	1,581	1,722	1,863	2,004	2,146

Figure 1: Sensitivity analysis

The sensitivity analysis shows that the Project is more sensitive to nickel price, nickel recovery and grade than it is to either opex or capex.

Market Review and Nickel Pricing

In June 2019, the Company commissioned Wood Mackenzie to develop a report on the market for nickel sulphate. As consequence of that report the following assumptions with respect to commodity pricing were used in the PFS.

- > The consensus nickel price of US\$16,400/t (US\$7.44/lb) was used in the Base Case for the PFS along with a US\$2,000/t (US\$0.91/lb) nickel sulphate product premium. The nickel sulphate premium is driven by the battery market (where nickel sulphate is valued higher than class 1 nickel) and is supported by very strong growth in the EV car market. The US\$2,000/t (US\$0.91/lb) sulphate premium is the average value realised in the market over the last 12 months. The Wood Mackenzie long-term price currently stands at approximately US\$19,800/t (US\$8.98/lb); this was used as an alternative case for the PFS. A fixed price for nickel was applied over the LOM. The Qualified Person has reviewed the above and consider that the results support the assumptions in this Technical Report.
- > The cobalt price assumption of US\$34,000/t (US\$15.43/lb) used in this study is significantly below the long-term consensus bank/ broker forecasts which stand at US\$55,000/t (US\$25/lb).

Kieserite

In July 2019, the Company commissioned a report on the market for kieserite in Brazil from Dr Fabio Vale (Director Técnico/Technical Manager) of Aduhai Consultoria Agronômica (Aduhai).

The study concludes that:

The fertilizer market in Brazil is large. In 2018, 35.6 Mt of fertilizer was sold, of this 77.5% was imported and 22.5% was manufactured locally. The most likely consumers of the kieserite produced at the Project are the palm oil growers in Pará state, as palm oil trees have a very high demand for both magnesium and sulphur, although it has been demonstrated that coffee and cotton would also benefit from kieserite. The location of the Vermelho plant in the centre of the Pará state gives its distribution a competitive advantage over the imported product. The Project will produce approximately 150,000 t of kieserite a year, which is 10 times the current market for imported kieserite. This means there would be oversupply which would be expected to dictate a lower realised price than the current market, and substitution of other agro-products would be required for all Project kieserite to be consumed in the local market. This suggests that it would be unlikely for current prices (approximately US\$380/t FOB Barcarena) to be realised. For the study, the Company has assumed a kieserite price of US\$180/t (delivered) – about half of the current price realised at the port of Barcarena. The study assumes a cost of US\$80/t for delivery and marketing of kieserite.

Operations Review continued

Community, Environment and Permitting

The Vermelho project is located 3km from the town of Canaã dos Carajás, founded in 1994, which forms the southern limit of the Carajás Mining District (CMD) Pará state, north of Brazil. The CMD is host to a number of tier 1 iron, nickel and copper mines operated by Vale.

Mining and related industries in the CMD play a vital role in the socio-economic fabric of the region, with the municipality presenting considerable per capita income, the second highest of the Pará state.

In 2004, Vale started to operate the Sossego Copper Mine after several infrastructure municipality improvements, and most recently (2017) ramped-up the S11D project, one of the largest standalone iron operations in the world. As a result of the advances of mining in the region, there has been a significant influx of people and investment, which has in turn promoted changes and improvements in the areas of economic growth, cultural diversity and a more developed economy than nearby towns, heavily centred around mining related activities.

Key environmental studies for the advancement of the Vermelho project licensing stages were completed by Vale. The Company will utilize the studies and baseline data collected by previous owners to inform and expedite new EIA RIMA studies.

Whilst a new permit pathway is proposed, the previously awarded permits for the Vermelho project provide a solid basis from which to progress the Vermelho project permitting

The Company will utilize the Vale studies and baseline data collected to inform and expedite new EIA RIMA studies. As the Company will recommence the licensing for the Vermelho project, the Company will both update studies and undertake new studies to accurately characterize the current physical environment, biological environment and social settings.

Next Phase of Vermelho Project Development

The PFS demonstrates that the Vermelho project is technically, economically viable, and is expected to obtain all the regulatory and permitting requirements. Consequently, the Vermelho project should progress to a Feasibility Stage.

Serra do Tapa

During the year the Company published an initial NI43-101 Mineral Resource Estimate for the Serra do Tapa nickel deposit ('Serra do Tapa'). The Company's 100% owned Serra do Tapa nickel deposit, was acquired from Glencore/Xstrata in October 2015, and is near the Carajás mining district and approximately 90 kilometres North of the Company's Araguaia project.

The Serra do Tapa resource is high grade and scalable, using a 1.2% nickel cut-off grade it delivers over 41 million tonnes of Mineral Resource in the Measured and Indicated category grading 1.4% nickel. With the addition of Serra do Tapa, the company now has 100% ownership of a nickel district, with over 280 million tonnes of resource (in the measured and indicated category), in one of the largest mining districts in Brazil, the Carajás district, which has good infrastructure, water, energy and skilled labour. This generates the potential for the Company to develop two mining centres within trucking distance of each other, the first in the south at Araguaia, the second production centre in the north, at Vermelho. The additional material from the Serra do Tapa deposit could serve either operation.

Highlights

- > The Serra do Tapa Mineral Resources, in the Measured and Indicated category, are **70.3 million tonnes grading 1.22% nickel** (at 0.9% nickel cut off);
- > The Company's 100% owned aggregate Mineral Resource inventory shows a 30% increase in tonnage with the addition of the Serra do Tapa deposit;
- > A significant portion of high grade saprolite within the deposit is amenable to the Rotary Kiln Electric Furnace ('RKEF') process route to produce ferro-nickel, potentially providing a further high-grade feed source for the Araguaia project;

A total of 48,845 metres of diamond drilling (952 holes) were used in the evaluation of the Serra do Tapa deposit and for the development the Mineral Resource Estimates disclosed herein.

Nickel cut-off grades and corresponding estimated Mineral Resources at Serra do Tapa are presented in Table 1. The Mineral Resource is reported by a series of nickel cut-offs. The Mineral Resource was estimated in 2016 by Snowden Mining Industry Consultants using Datamine Studio 3 mining software.

Table 1: Combined Classified Mineral Resource Report for Serra do Tapa by Nickel cut-off

Cut-off Ni%	Tonnage (Mt)	Ni%	Contained Ni (kt)	Co%	Fe%	MgO%	SiO ₂ %	Al ₂ O ₃ %
Measured								
0.8	16.5	1.25	206.9	0.05	16.6	18.4	40.9	3.6
0.9	14.3	1.31	187.9	0.05	16.4	18.1	41.3	3.6
1.0	12.1	1.38	167.0	0.05	16.5	17.7	41.6	3.6
1.2	10.0	1.45	144.7	0.05	16.6	17.1	41.9	3.6
Indicated								
0.8	71.1	1.12	798.3	0.05	17.0	18.5	40.2	3.8
0.9	56.0	1.2	669.5	0.05	17.0	17.9	40.6	3.8
1.0	43.0	1.27	546.1	0.05	17.1	17.1	41.1	3.9
1.2	31.7	1.35	427.7	0.05	17.3	16.2	41.4	4.0
Measured + Indicated								
0.8	87.7	1.15	1,005.1	0.05	16.9	18.5	40.3	3.8
0.9	70.3	1.22	857.4	0.05	16.9	17.9	40.8	3.8
1.0	55.1	1.3	713.1	0.05	17.0	17.3	41.2	3.8
1.2	41.7	1.37	572.5	0.05	17.2	16.4	41.5	3.9
Inferred								
0.8	4.0	1.04	41.7	0.06	21.9	13.5	35.6	5.9
0.9	2.7	1.14	30.5	0.06	22.3	12.3	35.9	6.0
1.0	1.9	1.22	22.8	0.06	22.0	11.7	37.0	5.9
1.2	1.3	1.31	16.7	0.06	21.6	11.3	38.0	5.8

Note: Totals in tables may not add due to rounding. Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues. The quantity and grade of reported Inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred resources as an Indicated or Measured mineral resource and it is uncertain if further exploration will result in upgrading them to the Indicated or Measured mineral resource category.

Operations Review continued

Disclosure of the Serra do Tapa Mineral Resource brings the Company's total disclosed Measured and Indicated nickel laterite Mineral Resources in Brazil to 280 million tonnes (at a 0.9% nickel cut-off) including 3.5 million tonnes of contained nickel, see table 2, below for details:

Table 2: Combined Classified Mineral Resources for the Company at a 0.9% Ni Cut-off

Project	Resource Classification	Material type	Tonnage (MT)	Ni(%)	Contained Ni metal (kt)	Co (%)	Contained Co Metal (kt)
Araguaia	Measured	All	18.2	1.44	261	0.05	9.9
	Indicated	All	101.2	1.25	1264	0.06	60.9
	Measured+Indicated	All	119.3	1.27	1525	0.06	70.7
	Inferred	All	12.9	1.19	154	0.06	7.9
Serra Do Tapa	Measured	All	14.3	1.31	188	0.05	7.1
	Indicated	All	56.0	1.20	670	0.05	28.0
	Measured+Indicated	All	70.3	1.22	857	0.05	35.1
	Inferred	All	2.7	1.14	31	0.06	1.5
Vermelho	Measured	All	87.6	1.23	1,073	0.06	47.5
	Indicated	All	2.8	1.18	33	0.06	1.7
	Measured+Indicated	All	90.4	1.22	1,107	0.06	49.2
	Inferred	All	1.3	1.14	15	0.05	0.6
Totals	Measured	All	120.0	1.27	1,522.4	0.05	64.5
	Indicated	All	160.0	1.23	1,964.1	0.06	90.6
	Measured+Indicated	All	280.0	1.25	3,486	0.06	155.1
	Inferred	All	16.9	1.18	200	0.06	10.1

Note: Totals in tables may not add due to rounding. Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues. The quantity and grade of reported Inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred resources as an Indicated or Measured mineral resource and it is uncertain if further exploration will result in upgrading them to the Indicated or Measured mineral resource category.

Strategic Report Simon Retter

The Directors of the Company and its subsidiary undertakings (which together comprise 'the Group') present their Strategic Report for the year ended 31 December 2019.

Review of the Business

The Group is focused on the development of the Araguaia and Vermelho projects, both of which are located in Brazil. See the Chairman's Statement on page 6 and Operations review on page 8 for detailed reviews of the business during the year.

Aims, Strategy & Business Plan

The Group's **aim** is to create value for shareholders through the development of the Araguaia Project through to feasibility stage and into development.

The Group's **strategy** is to continue to progress the development of the 100% owned Araguaia project towards construction as well as undertaking a pre-feasibility study on the newly acquired Vermelho project. The Group also evaluates on an ad hoc basis with a view to eventual acquisition, exploration and development of mineral projects in jurisdictions in which it holds a presence, and/or in sectors in which management has expertise.

The Group's **business plan** is to advance the Araguaia project towards construction and ultimately bring the asset into production in order to enhance shareholder value whilst advancing the Group's second asset, the Vermelho project towards defining economic feasibility. A Feasibility Study was published late in 2018 on Araguaia and during 2019 a significant financing partner, Orion Mine finance (OMF) invested \$25m to advance the project, build out the team in anticipation for construction and advance the wider project finance negotiations. A Pre-Feasibility Study was published, on Vermelho which was a significant milestone in progressing the project following its acquisition in early 2018.

The Board seeks to run the Group with a low-cost base in order to maximise the amount that is spent on exploration and development as this is where value can be added. To this extent, the corporate office is run on a streamlined basis by a core team, and specialist skills and activities are outsourced as appropriate, both in the United Kingdom and in Brazil.

The Group finances its activities through periodic capital raisings with share placings. As the Group continues to develop its projects, there may be opportunities to obtain funding through other financial instruments, including royalty, debt or other arrangements with strategic parties.

Principal Risks and Uncertainties

Set out below are the principal risks and uncertainties facing the Group:

Exploration risks

The exploration and mining business is controlled by a number of global factors, principally supply and demand which in turn is a key driver in global metal prices; these factors are beyond the control of the Group. Exploration is a high-risk business and there can be no guarantee that any mineralisation discovered will result in proven and probable reserves or go on to be an operating mine. At every stage of the exploration process the projects are rigorously reviewed, both internally and by qualified third party consultants to determine if the results justify the next stage of exploration expenditure, ensuring that funds are only applied to high priority targets.

The principal assets of the Group, comprising the mineral exploration licences are subject to certain financial and legal commitments. If these commitments are not fulfilled the licences could be revoked. The Group closely monitors on an ongoing basis its commitments and the expiry terms of all licences in order to ensure good title is maintained. They are also subject to legislation defined by the government in Brazil; if this legislation is changed it could adversely affect the value of the Group's assets.

Resource and Reserves Estimates

The Group's reported resources and reserves are only estimates. No assurance can be given that the estimated resources will be recovered or that they will be recovered at the rates estimated. Mineral reserve and resource estimates are based on limited sampling and as a result are uncertain because the samples may not be fully representative of the full resource. Mineral resource estimates may require revision (either up or down) in future periods based on further drilling or actual production experience.

Any future resource figures will be estimates and there can be no assurance that the minerals are present, will be recovered or that they can be brought into profitable production. Furthermore, a decline in the market price for natural resources, particularly nickel, could render reserves containing relatively lower grades of these resources uneconomic to recover.

Country risk

The Group's licences and operations are located in foreign jurisdictions. As a result, the Group is subject to political, economic and other uncertainties, including but not limited to, changes in policies or the personnel administering them, appropriation of property without fair compensation, cancellation or modification of contract rights, royalty and tax increases and other risks arising out of foreign governmental sovereignty over the area in which these operations are conducted.

Brazil is the current focus of the Group's activity and offers stable political frameworks and actively supports foreign investment. It has a well-developed exploration and mining code with proactive support for foreign companies.

Volatility of commodity prices

Historically, commodity prices (including in particular the price of nickel) have fluctuated and are affected by numerous factors beyond the Group's control. The aggregate effect of these factors is impossible to predict. Fluctuations in commodity prices in the long-term may adversely affect the returns of the Group's exploration projects.

Whilst the outlook and forecasts for nickel prices are generally positive, any significant reduction in the global demand for nickel, leading to a fall in nickel prices, could lead to a significant fall in the cash flow of the Group in future periods and/or delay in exploration and production, which may have a material adverse impact on the operating results and financial position of the Group.

Financing

The successful exploration of natural resources on any project requires significant capital investment. The Group currently sources finance through the issue of additional equity capital. The Group's ability to raise further funds will depend on the success of its investment strategy and acquired operations. The Group successfully raised capital recently, which places it in a strong position, however, the Group may not be successful in procuring the requisite funds on terms which are acceptable to take the project forwards and, if such funding is unavailable, the Group may be required to reduce the scope of its investments or anticipated expansion. As the Group is currently in the exploration stage it does not generate revenues and is therefore reliant on its cash resources and obtaining additional financing to fund its operations, should the cash resources deplete and should there be a lack of available financing alternatives the Group may find it difficult to fund its working capital.

Dependence on key personnel

The Group is dependent upon its executive management team. Whilst it has entered into contractual agreements with the aim of securing the services of these personnel, as well as a long-term incentive plan comprising options and milestone incentives, the retention of their services cannot be guaranteed. The development and success of the Group depends on the ability to recruit and retain high quality and experienced staff. The loss of service of key personnel or the inability to attract additional qualified personnel as the Group grows could have an adverse effect on future business and financial conditions. To date the Group has been successful in recruiting and retaining high quality staff.

Title risk

The Group's current and future operations will require approvals and permits from various federal, state and local governmental authorities, and such operations are and will be governed by laws and regulations governing prospecting, development, mining, production, taxes, labour standards, health, waste disposal, toxic substances, land use, environmental protection, mine safety and other matters. There is no assurance that delays will not occur in connection with obtaining all necessary renewals of such approvals and permits for the existing operations or additional approvals or permits for any possible future changes to operations. Prior to any development on any of its properties, the Group must receive permits from appropriate governmental authorities. There can be no assurance that the Group will continue to hold all permits necessary to develop or continue operating at any particular property or obtain all required permits on reasonable terms or on a timely basis.

Uninsured risk

The Group, as a participant in exploration and development programmes, may become subject to liability for hazards that cannot be insured against or third party claims that exceed the insurance cover. The Group may also be disrupted by a variety of risks and hazards that are beyond its control, including geological, geotechnical and seismic factors, environmental hazards, industrial accidents, occupation and health hazards and weather conditions or other acts of God.

Financial risks

The Group's operations expose it to a variety of financial risks, particularly relating to foreign currency exchange rates as a result of the Group's foreign operations. The Group has a risk management programme in place that seeks to limit the adverse effects of these risks on the financial performance of the Group.

Details of the Group's financial risk management objectives and policies are set out in note 3 to the Financial Statements.

Covid-19

Since the year end there has been a significant global pandemic which has had significant knock on effects for the majority of the world's population, by way of the measures governments are taking to tackle the issue. This represents a risk to the Group's operations by restricting travel, the potential to detriment the health and wellbeing of its employees, as well as the effects that this might have on the ability of the Group to finance and advance its operations in the timeframes envisaged.

Financial Performance Review

The Group is not yet producing minerals and so has no income other than bank interest. Consequently, the Group is not expected to report profits until it disposes of or is able to profitably develop or otherwise turn to account its exploration and development projects. The principal financial key performance indicators ('KPIs') monitored by the Board concern levels and usage of cash.

The four main financial KPIs for the Group allow it to monitor costs and plan future exploration and development activities and are as follows:

	2019	2018
Cash and cash equivalents	£17,760,330	£6,527,115
Administrative expenses as a percentage of Total assets	4.3%	3.2%
Funds raised to advance Araguaia	USD25M	—
Exploration costs capitalised as intangible assets during the year	£5,928,916	£4,481,940

KPI's are not GAAP measurements and are not intended to be a substitute for these measures. The KPI's used by the Group may not be the same as those used by other companies and so should not be used as such.

Administrative expenses as a percentage of total assets have increased, as a result of an increase in professional advisers fees due to the commencement of project finance negotiations.

Exploration costs capitalised as intangible assets predominantly relate to expenditure on the Vermelho project during 2019 as a result of the completion of a Pre-Feasibility Study combined with the recognition of the deferred consideration due to Vale now that a probable path to production has been demonstrated.

Given the key strategy of the Group is advance the Araguaia project through to construction, we have included the quantum of funds raised to meet this target as a KPI for the first time this year. A \$25 million payment for a royalty over the first 426k tonnes of nickel produced from Araguaia was secured with Orion Mine Finance during the year. This royalty was secured as part of a process which was commenced in April 19, was in line with expectations and enabled the group to start certain key workstreams ahead of the finalisation of the broader project finance package which is currently being undertaken. It also secures a key relationship with one of the largest mine finance funds operating in the market at present.

At 31 December 2019, the Group's intangible assets had a carrying value of £7,057,445, representing a significant reduction compared to the prior year following a transfer of the Araguaia project to a new Mine Development Project category within fixed assets.

Fundraising

On 20th October 2019, the Group completed the drawdown of a \$25m royalty financing arrangement secured from Orion Mine Finance in exchange for a revenue royalty over the first 426k tonnes of nickel produced from the Araguaia project. This financing arrangement secures a partnership with one of the largest mine finance funds in the market at present and constituted an important approval of the project. The funds were raised to ensure the project could advance in areas such as securing a team for construction, further engineering work, early works and land acquisitions whilst the Group works towards securing the main project finance package.

Non-Financial Key Performance Indicators ('KPIs')

The Board monitors the following non-financial KPIs on a regular basis:

Strategic Report continued

Health and Safety – number of reported incidents

There were no significant reportable incidents in the current or prior year.

Operational performance

Good progress was made during the year with the completion of a royalty funding arrangement of \$25m for a headline revenue royalty on the Company's flagship Araguaia nickel project. In addition a Pre-Feasibility Study was published on the Vermelho Nickel-Cobalt project demonstrating robust economics and a potential source of conflict free cobalt sulphate.

Directors' section 172 statement

The following disclosure describes how the Directors have had regard to the matters set out in section 172(1)(a) to (f) and forms the Directors' statement required under section 414CZA of The Companies Act 2006. This new reporting requirement is made in accordance with the new corporate governance requirements identified in The Companies (Miscellaneous Reporting) Regulations 2018, which apply to company reporting on financial years starting on or after 1 January 2019.

The matters set out in section 172(1) (a) to (f) are that a Director must act in the way they consider, in good faith, would be most likely to promote the success of the Company for the benefit of its members as a whole, and in doing so have regard (amongst other matters) to:

- > the likely consequences of any decision in the long term;
- > the interests of the Company's employees;
- > the need to foster the Company's business relationships with suppliers, customers and others;
- > the impact of the Company's operations on the community and the environment;
- > the desirability of the Company maintaining a reputation for high standards of business conduct; and
- > the need to act fairly between members of the Company.

In the above Strategic Report section of this Annual Report, the Company has set out the short to long term strategic priorities, and described the plans to support their achievement.

We have split our analysis into two distinct sections, the first to addresses Stakeholder engagement, which provides information on stakeholders, issues and methods of engagement, disclosed by stakeholder group. The second section addresses principal decisions made by the Board and focuses on how the regard for stakeholders influenced decision-making.

Section 1. Stakeholder mapping and engagement activities within the reporting period.

The Company continuously interacts with a variety of stakeholders important to its success, such as equity investors, royalty holders, workforce, government bodies, local community & vendor partners. The Company strives to strike the right balance between engagement and communication. Furthermore, the Company works within the limitations of what can be disclosed to the various stakeholders with regards to maintaining confidentiality of market and/or commercially sensitive information.

Who: Key Stakeholder Groups	Why: why is it important to engage this group of stakeholders	How: how Horizonte engaged with the stakeholders	What: what came of the engagement
Equity Investors			
Equity Investors All substantial shareholders that own more than 3% of the Company's shares are listed on page 51 within the Governance Report. The Company requires further funding to develop the Araguaia and Vermelho Projects. As such, existing and prospective equity investors as well as Project level partners are important stakeholders.	Access to capital is of vital importance to the long-term success of our business to be able to construct the Araguaia and Vermelho Projects. Without the provision of significant new financial investment, the Company cannot create value for our shareholders by producing nickel products and therefore a return on the investment. Through our engagement activities, we strive to obtain investor buy-in into our strategic objectives detailed on page 22 and how we go about executing them. We are seeking to promote an investor base that is interested in a long term holding in the Company and will support the Company in achieving its strategic objectives. Over the course of 2019, the number of shares held in public hands has increased and the overall daily volume of shares traded has increased significantly.	The existing substantial shareholders have regular meetings with the CEO and CFO. Prospective and existing investors > The AGM and Annual and Interim Reports. > Investor roadshows and presentations. > One-on-one investor meetings with the Chairman, CEO and CFO. > Access to the Company's brokers and advisers > Regular news and project updates. > Social media accounts e.g. Twitter @Horizonteplc > Site visits for potential cornerstone investors.	We engaged with investors on topics of strategy, governance, project updates and performance. The CEO and CFO presented at a number of investor roadshows and one-to-one meetings and have increased the profile of the Group with an international base of potential investors.

Who: Key Stakeholder Groups	Why: why is it important to engage this group of stakeholders	How: how Horizonte engaged with the stakeholders	What: what came of the engagement
<p>Workforce</p> <p>The Company has seven UK employees including its Directors. Three of the Directors are UK residents and three are overseas resident Directors. Both the CEO and CFO are UK based. The rest of the Company's workforce is based in Brazil.</p>	<p>The vast majority of its employees going forward will be based in Brazil and the Directors consider workforce issues holistically for the Group.</p> <p>The Company's long-term success is predicated on the commitment of our workforce to our vision and the demonstration of our values on a daily basis.</p> <p>The Board have identified that reliance on key personnel is a known risk.</p>	<p>General Workforce:</p> <ul style="list-style-type: none"> > The Company maintains an open line of communication between its employees, senior management and Board of Directors. <p>UK employees</p> <ul style="list-style-type: none"> > The CEO and CFO report regularly to the Board, including the provision of board information. > There is a formalised employee induction into the Company's corporate governance policies and procedures. <p>Brazil</p> <ul style="list-style-type: none"> > The Company maintains an HR Function in both the UK and Brazil. > The Company maintains an anonymous email correspondence address that feeds directly into the UK office for any employee or safety/social concerns > Senior management regularly visit the operations in Brazil and engage with its employees through one-on-one and staff meetings, employee events, project updates, etc. > Safety is a key factor in the governance of the Group and senior management hold frequent safety meetings. 	<p>UK Employees</p> <p>The Board met with management to discuss long term remuneration strategy. The Remuneration committee have undertaken a review to examine and benchmark Non-executive Director and Executive team remuneration. Board reporting has been optimised to include sections on engagement with workforce.</p> <p>Brazil</p> <p>Following the appointment of a project director a new set of policies and procedures has been implemented.</p> <p>The team were trained in aspects of corporate policies and procedures to engender positive corporate culture aligned with the Company code of conduct.</p> <p>Meetings were held with staff to provide project updates and ongoing business objectives.</p>
<p>Government bodies</p> <p>The Company is impacted by local governmental organisations in the UK and Brazil.</p>	<p>The Company has its licence to construct the processing plant but will only be able to commence production once it receives relevant licences and permits from government to mine and undertake chemical processing.</p>	<p>The Company provides general corporate presentations regarding the Araguaia Project development as part of ongoing stakeholder engagement with the state, local and federal governments agencies. The Company maintained its good relations with the respective government bodies and frequently communicated progress.</p> <p>The Company engages with the relevant departments of the Brazilian government in order to progress the operational licences it will require.</p>	<p>To date, the Company has received its requisite environmental and land use permits to enable construction to commence as soon as financing is secured. With this in place, the Company is now focused on secondary permitting such as the powerline.</p>

Who: Key Stakeholder Groups	Why: why is it important to engage this group of stakeholders	How: how Horizonte engaged with the stakeholders	What: what came of the engagement
<p>Community</p> <p>The local community at the project site and surrounding area.</p>	<p>The community provides social licence to operate. We need to engage with the local community to build trust. Having the community's trust will mean it is more likely that any fears the community has can be assuaged and our plans and strategies are more likely to be accepted. Community engagement will inform better decision making.</p> <p>The local community in Para state and the Araguaia area will provide employees to the mine and our suppliers.</p> <p>The Company will in due course have a social and economic impact on the local community and surrounding area. The Company is committed to ensuring sustainable growth minimising adverse impacts. The Company will engage these stakeholders as appropriate.</p>	<p>The Company has a Community Relations Officer and head of Communications based between Brazil and the UK</p> <ul style="list-style-type: none"> > The Company has identified all key stakeholders with the local community within the reporting period. > The Group has open dialogue with the local government and community leaders regarding the project development. > The Company has existing ESG/ CSR policies and management structure at corporate level. The Company will expand on these policies and structures at a local project level as the Company moves into construction and then production. 	<p>The Company has ongoing engagements with the local community as part of the development of its sustainability initiatives. Stakeholder identification has enabled the Company to ensure that representatives of all stakeholder groups may participate in the community engagement programme.</p>

Who: Key Stakeholder Groups	Why: why is it important to engage this group of stakeholders	How: how Horizonte engaged with the stakeholders	What: what came of the engagement
Suppliers During the construction phase, we will be using key suppliers under commercial engineering contracts to deliver the mine and plant, all of whom are large international vendors. At a local level, we also partner with a variety smaller companies, some of whom are independent or family run businesses.	Our suppliers are fundamental to ensuring that the Company can construct the project on time and budget. Using quality suppliers ensures that as a business we meet the high standards of performance that we expect of ourselves and vendor partners.	<ul style="list-style-type: none"> > Management team continue to work closely with engineering and specialised consultancy firms including: > One on one meetings between management and suppliers. > Vendor site visits and facility audits to ensure supplier able to meet requirements. > Contact with procurement department and accounts payable. > Visits to suppliers of key pieces of equipment that are due to be sourced as soon as project finance is secured 	Large vendors and engineering firms have been engaged and agreed to work within the Groups policies and objectives Small local vendors were engaged at a broader level to better align with company objectives.
Royalty Holder The Company has a royalty holder with rights over revenue from the Araguaia project.	The Company is moving toward the construction stage of its project and a key metric to sourcing the capital required, is securing its royalty and offtake agreements.	The royalty holder had regular meetings and presentations with the CEO, CFO and wider team prior to making an investment into the Group. These meetings, presentations and dialogue on the wider progress of the project have continued following the investment.	The Company was successful in securing a Royalty partner for its Araguaia project, who is one of the largest investors in mine construction projects globally. This secured a \$25m investment enabling the Group to continue to advance the project whilst work continues on securing the balance of the project finance package.

Section 2, Principal decisions by the board during the period.

We define principal decisions as both those that have long-term strategic impact and are material to the Group, but also those that are significant to our key stakeholder groups. In making the following principal decisions, the Board considered the outcome from its stakeholder engagement, the need to maintain a reputation for high standards of business conduct and the need to act fairly between the members of the Company:

a) Royalty Agreement with Orion Mine Finance:

The Company undertook a review of its financing options at the beginning of the year and commenced a formal royalty process during Q1 2019. This was based up on the desire to advance the project with certain critical work streams in advance of securing the remained of the project finance for the development of Araguaia. This resulted in OMF investing \$25 million and obtaining a royalty over revenue generated from the Araguaia Ferronickel project.

The decision is aligned with several of the key parts of the Company's business model and corporate strategy, namely, to continue to advance the Araguaia project towards being construction ready, to bring in a strategic financial partner to assist in the ultimate financing of the project and to maximise shareholder value by limiting shareholder dilution.

The key stakeholder groups that could be materially impacted: Existing shareholders and potential investors, governmental bodies and Company employees.

Existing shareholders may have conflicting interests with the OMF due to the payments under the Royalty being derived purely from revenue as well as the associated security package provided to OMF by the parent and other subsidiaries to guarantee the payments under the Royalty. The Directors considered the impact and concluded that obtaining a strategic and cornerstone financial investor in OMF, significantly de-risks completing the funding package for the development of the Araguaia Project, which will create shareholder value in the longer term and that a non-dilutive source of financing for the project was highly desirable at the time, given the comparison to issuing equity at the prevailing share price at that time.

Adding a significant financial partner who could potentially provide further capital into the Project would strengthen the likelihood of the project successfully completing its project financing and thus moving into production.

The Directors also considered the potential impact of the investment on local communities, employees and governmental bodies. The Board concluded that securing a significant financial investment thereby enabling the project to advance towards its stated goals of constructing the Araguaia project would likely be beneficial to all these stakeholders. The employment generated as a result of the continued development of the project as well as local taxes and overall economic activity were overall in the interest of stakeholders.

b) Completion of a Pre Feasibility Study on the Vermelho Nickel Cobalt project

The Company undertook the bulk of the work on a Pre-Feasibility Study during the year and published its findings during October 2019. The results of the PFS demonstrated compelling economics and it estimated that the proposed processing route of High Pressure Acid Leaching could be constructed within the capital cost environment for securing financing for mining projects in the prevailing economic climate.

The key stakeholder groups that could be materially impacted: Existing shareholders and potential investors, governmental bodies and Company employees.

The Directors are of the opinion that it is in the interest of existing shareholders and potential investors to demonstrate the potential economic viability of the project and to proceed with advancing the project towards a Feasibility Study and ultimate construction decision.

It is in the interest of local governments and all group employees to understand the potential economic viability of the Group's Vermelho project, which could, if brought into production, generate a significant amount of tax revenue and employment.

In making the above principal decisions, the Directors believe that they have considered all relevant stakeholders, potential impact and conflicts, the Company's business model and its long-term strategic objectives, and have acted accordingly to promote the success of the Company for the benefit of its members as a whole.

Financial Review

	Year ended 31 December 2019 £	Year ended 31 December 2018 £
Loss before taxation	(3,171,214)	(1,939,663)
Cash and cash equivalents	17,760,330	6,527,115
Exploration & Mine Development assets	39,317,506	35,737,902
Royalty liability	(20,570,411)	—
Fair value of derivative asset	2,246,809	—
Net assets	31,747,057	36,958,955
Loss per share (pence)	0.219p	0.136p

Loss for the year

The loss for the year increased to £3,171,214 from £1,939,662 in 2018 primarily due to an overall increase in the level of administrative expenses, increase in finance costs as a result of the unwinding of discount on the newly secured royalty funding, and a loss as a result of foreign exchange movements.

The Group has continued to keep a tight control on its administrative costs, but these are expected to rise as the Group increases its headcount and activity as it progresses towards securing project finance and ultimately commencement of construction at Araguaia. As a result of this the administrative expenses increased during the year by £1,227,787 to £2,563,880.

Furthermore, total comprehensive loss attributable to equity holders of £5,798,153 included loss on currency translation differences of £2,626,939. This was due to the weakening of BRL against both USD and GBP as at 31 December 2019, as compared to 31 December 2018.

Cash and cash equivalents

The group held cash and cash equivalents of £17,760,330 compared to £6,527,115 in the prior year. The increase was due to \$25 million of new funding secured by issuing a royalty over 2.25% of revenue for the first 426k tonnes of nickel produced from Araguaia.

Royalty Liability

The \$25 million upfront payment for a royalty secured during the year has been valued using the amortised cost basis and is valued as a liability of £20,570,511 at 31 December 2019. This funding is not repayable until the project enters into commercial production and following that payments are made at a variable rate of 2.25% potentially increasing to 3.0% based upon the date that project finance is secured and certain level of construction expenditure is committed. The current assumed royalty rate is 2.45%. The royalty is due on revenue less some associated costs on a quarterly basis and has been fair valued based on the expectation of the future payments under the agreement. Included in the agreement are certain embedded derivatives which can under certain circumstances result in the Company having the ability to buy back certain levels of the royalty, the purchase price is driven by the holder obtaining certain milestones on its return on investment. The result of these derivatives are a fair value of derivative asset being recognised on the balance sheet of £2.2 million.

Exploration Assets

Exploration assets, which comprise both the Araguaia and Vermelho projects, have decreased to £6,055,346 as at 31 December 2019 as compared to £35,737,902 at 31 December 2018 this is due to the transfer of the Araguaia to fixed assets following the finalisation of the feasibility study in late 2018 and securing of significant amount of finance by way of a \$25m royalty during the year. The Group incurred addition expenditure in the year, which included £6,222,796 in relation to work undertaken on Araguaia and the Vermelho Pre-Feasibility Study as well as a significant foreign exchange revaluation loss of £2,610,847 as Sterling appreciated against the Brazilian Real. The exploration assets of the business are recorded in the functional currency of Brazil, the country in which they are located.

The strategic report was approved by the board on 7 April and is signed on its behalf by Simon Retter



Simon Retter
Company Secretary
 7 April 2020

Board of Directors and Key Management

A wealth of experience

David J. Hall, BA (Hons), MSc, Fellow SEG, P.Geo, Non-Executive Chairman

Mr. Hall is a graduate in geology from Trinity College Dublin and holds a Master's Degree in Mineral Exploration from Queen's University, Kingston, Ontario. He has over 30 years of experience in the exploration and mining sector and has worked on and assessed exploration projects and mines in over 40 countries. From 1992, Mr. Hall was Chief Geologist for Minorco, responsible for Central and Eastern Europe, Central Asia and the Middle East. He moved to South America in 1997 as a Consultant geologist for Minorco South America and subsequently became exploration manager for AngloGold South America in 1999, where he was responsible for exploration around the Cerro Vanguardia gold mine in Argentina, around the Morro Velho and Crixas mines in Brazil and establishing the exploration programme that resulted in the discovery of the La Recantada gold deposit in Peru as well as certain joint ventures in Ecuador and Colombia. In April 2002, Mr. Hall became an executive director of Minmet and operations director in September 2002. Mr. Hall led the divestment of Minmet's exploration assets in the Dominican Republic into GoldQuest Mining Corporation, which is listed on the TSX Venture Exchange. Mr. Hall was also founder of Stratex International Plc, that discovered the Oksut gold deposit now in production with Centerra Gold. Mr. Hall is a fellow of the Society of Economic Geologists and EuroGeol.

Jeremy J. Martin, MSc, ASCM Director and Chief Executive Officer

Mr. Martin holds a degree in Mining Geology from the Camborne School of Mines, and a Master's Degree in mineral exploration from the University of Leicester. He has worked in South America, Central America and Europe, where he was responsible for grassroots regional metalliferous exploration programmes through to resources definition and mine development. Mr. Martin has established a number of JV partnerships with major mining companies and has been involved in the formation of four AIM and TSX traded companies. He has served on a number of public company boards and is a member of the Society of Economic Geologists and the Institute of Mining Analysts.

Simon J Retter BSc (Hons), ACA Chief Financial Officer and Company Secretary

Mr Retter has a degree in Accounting and Finance from the University of Bristol and is a Chartered Accountant with over 10 years of experience in the mining industry. He has undertaken numerous corporate finance transactions across a broad range of industries including initial public offerings, reverse take overs and secondary fund raisings. He has served as finance director of Paragon Diamonds Ltd and currently holds the role of Non-Executive Director of HRC World plc, which holds the franchise for Hard Rock Cafes in greater China. Mr Retter is a member of the Institute of Chartered Accountants in England and Wales.

Owen A. Bavinton, BSc (Hons), MSc, DIC, PhD, Non-Executive Director

Dr. Bavinton graduated from the University of Queensland in Geology in 1969, holds a Master's Degree in Mineral Exploration from Imperial College, London and a PhD in Economic Geology from ANU, Canberra, Australia. He has over 45 years of varied international experience in the minerals exploration and mining sector in several commodities. After brief periods as a junior consultant and an underground mine geologist on a Witwatersrand gold mine, from 1974 to 1985 he had several positions with Western Mining Corporation, finally as director of WMC's activities in Brazil. From 1986 to 1992 he was Chief Executive Officer of Aredor Guinea SA. In 1992 he joined the Anglo American group where he stayed until his retirement in 2010. Based initially in Turkey and then in Budapest, he was responsible for Anglo American's exploration and project evaluation activities in the FSU, Central Europe and the Middle East. He moved to London in 1998, initially as Head of Exploration for Minorco, and later Group Head of Exploration and Geology for the Anglo American Group. In those roles, he was responsible for worldwide exploration and geosciences covering a range of exploration projects, through all stages of development, including advanced projects and feasibility studies, as well as providing geoscience input into numerous acquisitions. He is a fellow of the Society of Economic Geologists, the Association of Applied Geochemists and the Institute of Materials, Mining and Metallurgy. Dr. Bavinton is currently an independent consultant and speaks French and Portuguese.

Allan M. Walker, MA, Non-Executive Director

Mr. Walker has over 35 years of experience in investment banking and funds management, primarily focused on energy sector project finance and private equity, particularly in emerging markets. He has extensive contacts in the energy, infrastructure and resources sectors worldwide, as well as with governments, multilateral agencies and regional development banks. Mr. Walker is currently a consultant with UK Department for International Trade, where he is Head of Project Finance. Previously he was with Masdar Capital in Abu Dhabi, as Executive Director, responsible for managing the third party private equity funds management business for Masdar, the Abu Dhabi government's clean energy and sustainability company. Prior to that he founded (in 2005) and ran a similar private equity fund for Black River Asset Management (UK) Limited, an indirectly held subsidiary of Cargill Inc. Prior to Black River, Mr. Walker was head of power and infrastructure in London for Standard Bank Plc, a world leader in emerging markets resource banking. Mr. Walker was also previously a director in the Global Energy and Project Finance Group of Credit Suisse First Boston in London and ran the energy group at CSFB Garantia in Sao Paulo, Brazil from 1998 to 2001, where he spent seven years covering Latin America. He also spent three years in the energy group of ING Barings in New York. Mr. Walker graduated with an MA in economic geography from Cambridge University in 1982 and received his financial training on a one year residential training programme with JP Morgan in New York in 1983. He speaks Portuguese and Spanish.

**Alexander N. Christopher, BSc (Hons), P.Geo,
Non-Executive Director**

Mr. Christopher, a professional geologist, has over 30 years of experience in mineral exploration and the mining industry. He is a member of the Association of Professional Engineers and Geoscientists BC and possesses an Honours B.Sc. in Geology from McMaster University and an Environmental Biology Technology diploma from Canadore College. Mr. Christopher currently holds the position of Senior Vice President, Exploration, Projects & Technical Services at Teck. Mr. Christopher has been with Teck since the mid-1980's holding a number of positions within the company. He is also currently a member of the Board of Directors of the Prospectors and Developers Association of Canada where he holds the position of First Vice President.

**William Fisher, P.Geo,
Non-Executive Director**

Mr. Fisher graduated as a geologist in 1979 and has extensive industry experience which has included a number of residential posts in Africa, Australia, Europe and Canada in both exploration and mining positions. Under his leadership, Karmin Exploration discovered the Aripuanã base metal sulphide deposits in Brazil. From 1997 to 2001 Mr. Fisher was Vice President, Exploration for Boliden AB, a major European mining and smelting company where he was responsible for thirty five projects in nine countries. From 2001 to 2008, Bill led GlobeStar Mining Corp. from an exploration company to an emerging base metal producer in the Dominican Republic which developed and operated the Cerro de Maimon mine until it was sold to Perilya for USD 186 million. Mr. Fisher was also Chairman of Aurelian Resources which was acquired by Kinross in 2008 for USD 1.2 Billion after the discovery of the Fruta del Norte gold deposit in Ecuador. Mr. Fisher currently serves as Executive Chairman of Goldquest Mining Corp. (TSX: GCQ), independent director of Treasury Metals Inc. (TSX: TML) and Chairman of Rame Energy (AIM: RAME).

Key Advisers

**Dr Philip Mackey P.Eng, PhD, FCIM
Senior Metallurgical Adviser**

Dr Mackey is a consulting metallurgical engineer with over forty years' experience in non-ferrous metals processing with a particular focus on nickel and copper sulphide smelting and nickel laterite processing. He has worked for leading producers of nickel including Falconbridge and Xstrata and throughout his career he has been involved in a number of nickel sulphide projects and later on, nickel laterite projects at various stages of the development cycle. Dr Mackey's extensive experience has seen him take projects from the start-up stage, through the feasibility stages and into the processing and production of non-ferrous metals. Dr Mackey is a Member and Fellow of the Canadian Institute of Mining and Metallurgy as well as the Metals and Minerals Society USA. He has also authored or co-authored over 100 publications regarding metallurgy with a particular focus on nickel and copper.

**Dr Nic Barcza P.Eng, PhD
Senior Pyrometallurgical Adviser**

Dr. Nic Barcza, has a PhD in Metallurgical Engineering and is a registered Professional Engineer. Nic is an Executive Consultant to Mintek in South Africa. He was the Chairman of Mintek's wholly-owned subsidiary Mindev Pty (Ltd), until the end of 2005 and has served on a number of Boards such as Mogale Alloys (Pty) Ltd, a ferroalloy and stainless steel dust/alloy recycling operation near Johannesburg. He is a past-President and Honorary Life Fellow of the South African Institute of Mining and Metallurgy (SAIMM), chairman of the International Committee of INFACON, a Fellow of the South African Academy of Engineering and has served on several academic advisory Boards and the Council of Wits University. Nic has worked on several titaniferous magnetite projects and also advises and consults for several other companies in South Africa and abroad including Anfield Nickel Corp. (Canada) and Oriel Resources Ltd (UK) on nickel and chrome projects.

**Pedro Rodrigues dos Reis
Project Director**

Mr Rodrigues is a highly qualified Civil Engineer with over 30 years' experience in capital infrastructure projects in the mining industry, principally in Brazil, Chile and Peru. He has a wealth of mining project experience having worked for both EPCM engineering companies and owner's project execution teams. His most recent roles as part of Senior team of Jacob's Engineering Group for Latin America involved the execution of a number of projects from feasibility through to construction. Prior to this he was Project Director for MMG Limited where he led the US\$7 billion Las Bambas copper Project in Peru, which was delivered successfully and brought into production ahead of schedule and under budget. He has worked across a variety of commodities, and has managed multiple EPCM's, for major and junior companies such as Minsur/Marcobre, MMG and Newmont Mining. As a Brazilian national with almost two decades of international experience, Mr Rodrigues brings a unique mix of skills and expertise to lead the construction of Araguaia.

Directors' Report

The Directors present their Annual Report on the affairs of Horizonte Minerals Plc, together with the audited Financial Statements for the year ended 31 December 2019.

Principal activities

The principal activity of the Group and Company is the identification, acquisition, exploration and development of mineral projects. The main area of activity comprises the development of the Araguaia nickel project, located in Pará State in north-eastern Brazil.

Financial review

The Group recorded a loss for the year of £3,171,214 (2018: £1,939,663). The Group is currently involved in exploration and evaluation activities and not actively mining. As a result, the Group is not revenue generative.

On 20th October 2019, the Group completed the drawdown of a \$25m royalty financing arrangement secured from Orion Mine Finance in exchange for a revenue royalty over the first 426k tonnes of nickel produced from the Araguaia project. This financing arrangement secures a partnership with one of the largest mine finance funds in the market at present and constituted an important approval of the project.

At 31 December 2019, the Group had cash and cash equivalents of £17,760,330 (2018: £6,527,115). The Directors have prepared cash flow forecasts for the 12 months from the date of signing of these Financial Statements. The Directors have formed a judgement at the time of approving the Financial Statements that there is a reasonable expectation that the Company and Group have adequate resources to continue operations for the foreseeable future. For this reason, the Directors continue to adopt the going concern basis in preparing the Financial Statements. Further details of the Directors' conclusions regarding going concern are detailed in note 2.4 to the Financial Statements.

The Directors do not recommend payment of a dividend (2018: £Nil).

Sustainability

Safety

Company continues its strong safety track record with 0 LTIs (lost time injury) throughout 2019.

Health

All employees now participating in the Company's medical and vaccination program.

Social

The Company spent approximately R\$100,000 on social investment projects in the region throughout 2019 and additionally provided in-kind support through employee volunteering.

Rehabilitation

In 2019 Horizonte commenced seedling production at its pilot greenhouse project and a number of local springs in the region have been rehabilitated with local shrubs and fencing.

Economy

Over 15% of all purchases were made within the Para State and around half a million Reais in the local towns surrounding our projects.

People

Strong and diverse owners team, including a good presence of local and female employees. In 2018, approximately 50% of our direct employees originated from the Pará State.

Environment & Social

In January of 2019, the award of the Construction Licence, Licença de Instalação ("LI") in Portuguese, was granted by SEMAS, the Brazilian Pará State Environmental Agency ('SEMAS') for Araguaia.

The granting of the LI provides Horizonte with the permits required to construct the Araguaia rotary kiln electric furnace ("RKEF") processing plant and associated infrastructure. The LI approval represents a major de-risking step for Araguaia, which is now fully permitted to commence construction.

In partnership with ERM, Brandt, Integratio and Ramboll consultants; the Company conducted a range of studies over 2019 to align with international banking standards, such as, the International Finance Corporation (IFC) Environmental and Social Performance Standards and Equator Principles.

Recommendations from the Feasibility Study were implemented throughout 2019, such as an independent expert review as well as detailed water flow data collection along the river and springs nearby the project area. All data collected confirms assessments made in the Water Balance produced by ERM and has further de-risked the Araguaia project.

Horizonte is working closely with local communities and developed a number of new partnerships in the towns nearby our planned projects throughout 2019. These projects include:

- > Strengthening the local supply chain (FIEPA partnership);
- > Sex education and reproductive health (Barong NGO partnership); and
- > Diversification of the rural economy (EMMATUR and COPAG rural partnerships).
 - The Company advanced a number of environment stewardship projects in 2019, including: Full implementation of pilot greenhouse project, with approximately native 2000 shrubs grown;
 - Rehabilitation of two native springs within Araguaia project influence area;
 - Clean-up of Araguaia river after the local summer festival;
 - Cultural and environmental heritage education projects.

The sustainability team also commenced baseline data collections at Vermelho in 2019 and is commencing Vermelho along the permitting pathway. We expect to announce a partner consultant group to lead the social and environmental impact assessment for Vermelho in the first half of 2020.

Permitting

The Company took significant strides in de-risking the Araguaia Project in 2019 through licence approvals and construction permit requests, culminating in the award of the Construction Licence for Araguaia.

Multiple permits were granted/progressed in 2019, including:

- > Approval of the Construction Licence (LI) for Araguaia South plant and associated infrastructure;
- > Approval of the water-use permit for dewatering of seven pits in the Araguaia South project area;
- > Approval of vegetation removal permit for Araguaia South;
- > Approval of fauna capture and fauna monitoring permit for Araguaia South;
- > Approval of completed archaeology works for Araguaia South;
- > Power utilisation permit for the Araguaia ferronickel project and submission of simplified environmental impact assessment for the Transmission Line;
- > Approval of Archaeology study methodology for Transmission Line and Araguaia North infrastructure;
- > Approval of fauna capture licence for the Araguaia North deposit;
- > Progress of environmental studies for the Araguaia North deposit including fauna and flora studies.

All of the major permits are in place for the Araguaia project. In 2020 the sustainability team will prioritise the progress of the remaining Araguaia licences to take Araguaia to shovel-ready phase.

In addition to this, the team is commencing the Vermelho project's environmental impact assessment with key consulting partner to be announced during 2020.

Health and safety

Horizonte operates a comprehensive health and safety programme to ensure the wellness and security of its employees. We are proud to have operated throughout 2019 with no lost time incidents. We are proud to have completed two injury-free years consecutively.

The Group operates with 6 'golden rules' aimed at mitigating the majority of health and safety risks applicable to exploration and development projects. Annually, Horizonte management provides a detailed in-house review of the Company's health and safety programme hand in hand with all members of the Brazil site team.

A health and safety audit was conducted by FAC consultants in 2018 and results of this were implemented throughout 2018 and 2019. The Araguaia project will bring health & safety specialists into the Owners team and the project expects to conduct new HAZID and HAZOP workshops mid-year as part of the engineering work in the lead up to Araguaia's construction.

Operational Governance

The Company has operated a Business Integrity Policy for a number of years. This policy has undergone a comprehensive review by internal and external lawyers and the updated policy was decimated amongst all employees including Board and management levels throughout 2019.

Since the recruitment of Pedro Rodrigues as Araguaia Project Director, a number of governance procedures have been implemented to ensure integrity and alignment with Company requirements. A Project Governance policy has been approved and implemented through communications and training to all employees.

Directors' Report continued

The Company operates an anonymous complaint handling procedure within communities, including email and telephone contact. Site employees also regularly visit and engage with locals to ensure open and transparent communications between the Company and its local stakeholders. Horizonte has a good diversity and equity record, with approximately 40% of its employees as female and almost half from within the local Para state. Further diversity and equity/human resources policies are planned for implementation throughout 2020.

Substantial shareholdings

The Directors are aware of the following substantial interests or holdings in 3% or more of the Company's ordinary called up share capital as at 6 April 2020.

Major shareholders	Number of shares	% of issued capital
Teck Resources Limited	210,207,179	14.5%
Hargreaves Lansdown	201,828,142	14.0%
Canaccord Genuity Group	128,481,667	8.9%
Interactive Investor	120,374,666	8.3%
JP Morgan	115,995,186	8.0%
Glencore	88,362,682	6.1%
Lombard Odier Asset Management	59,720,418	4.1%
HSDL	54,087,257	3.7%
AJ Bell	43,633,112	3.0%

Share capital

Changes in the share capital of the Company are set out in note 13 of the Financial Statements.

Directors and their interests

The names of the Directors of the Company at the date of this report are shown in the Statutory Information. Refer to note 24 for further details.

The Directors who served during the year, together with their directly beneficial interests in the shares of the Company as at 31 December 2019 are as follows:

Director	31 December 2019		31 December 2018	
	Shares	Options	Shares	Options
David Hall	1,039,955	16,000,000	1,039,955	16,000,000
Jeremy Martin	2,028,908	28,500,000	2,028,908	28,500,000
Owen Bavinton	2,000,000	13,000,000	2,000,000	13,000,000
Allan Walker	705,479	13,900,000	705,479	13,900,000
William Fisher	1,975,000	13,000,000	1,975,000	13,000,000
Alex Christopher	—	—	—	—

None of the Directors exercised any share options during the year.

There has been no change in the interests set out above between 31 December 2019 and 7 April 2020.

Directors' statement as to disclosure of information to auditor

The Directors who held office at the date of approval of this Directors' Report confirm that, so far as they are individually aware, there is no relevant audit information of which the Company's auditor is unaware and the Directors have taken all the steps that they ought to have taken to make themselves aware of any relevant audit information and to establish that the auditor is aware of the information.

Matters covered in the Business Review

The business review and review of KPIs are included in the Operations Review and Strategic Report.

Financial risk management

The Company is exposed through its operations to the following financial risks:

- > Commodity price risk
- > Foreign currency risk
- > Credit risk
- > Interest rate risk
- > Liquidity risk

In common with all other businesses, the Group is exposed to risks that arise from its area of operation, these along with managements policies surrounding risk management are included in note 3.

Events after the reporting date

The events after the reporting date are set out in note 32 to the Financial Statements.

Future developments

In 2020 the Group will be working towards securing the required project finance in order to construct and bring the Araguaia project into commercial production. Having published a Pre-Feasibility Study on the Vermelho project during 2019, the Group is focused on further advancing the VNCP project towards a Feasibility Study and eventual construction decision.

Directors and Officers Insurance

The Group provided Directors and Officers insurance for both the current and prior periods.

Annual General Meeting

The Notice of the Annual General Meeting of the Company and the Management Information Circular together with Management Discussion and Analysis as at 31 December 2019 will be distributed to shareholders together with the Annual Report. Full details of the business to be considered at that meeting can be found in the Notice.

Independent auditor

The auditor, BDO LLP, will be proposed for reappointment in accordance with section 485 of the Companies Act 2006.

BDO LLP has signified its willingness to continue in office as auditor.

By Order of the Board

Simon Retter
Company Secretary
7 April 2020



Statement of Directors' Responsibilities

The directors are responsible for preparing the strategic report, annual report and the financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have elected to prepare the group and company financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union. Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the group and company and of the profit or loss of the group and company for that period. The directors are also required to prepare financial statements in accordance with the rules of the London Stock Exchange for companies trading securities on the Alternative Investment Market and in accordance with the rules of the Toronto Stock Exchange.

In preparing these financial statements, the directors are required to:

- > select suitable accounting policies and then apply them consistently;
- > make judgements and accounting estimates that are reasonable and prudent;
- > state whether they have been prepared in accordance with IFRSs as adopted by the European Union, subject to any material departures disclosed and explained in the financial statements;
- > prepare the financial statements on the going concern basis unless it is inappropriate to presume that the company will continue in business.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the company's transactions and disclose with reasonable accuracy at any time the financial position of the company and enable them to ensure that the financial statements comply with the requirements of the Companies Act 2006. They are also responsible for safeguarding the assets of the company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Website publication

The directors are responsible for ensuring the annual report and the financial statements are made available on a website. Financial statements are published on the company's website in accordance with legislation in the United Kingdom governing the preparation and dissemination of financial statements, which may vary from legislation in other jurisdictions. The maintenance and integrity of the company's website is the responsibility of the directors. The directors' responsibility also extends to the ongoing integrity of the financial statements contained therein.

By Order of the Board
Simon James Retter
Company Secretary
7 April 2020

Corporate Governance Report

Corporate governance practices

The Board recognises the importance of sound corporate governance commensurate with the size of the Company and the interests of Shareholders. The Company strives to ensure that its corporate governance policies and procedures which are in place across the Group are of a high standard. The Board acknowledges the importance of good corporate governance and in light of the Group's size and rate of progression, decided to adopt the provisions of the QCA Corporate Governance Code in September 2018 ("the Code").

The Corporate Governance Statement in relation to the principles of the QCA Corporate Governance Code is provided on the Company website at <https://horizonteminerals.com/uk/en/governance/>

The Code is described as a practical, outcome orientated approach to corporate governance that is tailored for small and mid-size companies. It is a valuable reference for growing companies wishing to follow good governance practice. The Company has adopted the Code because it allows it to take a flexible yet adequate approach to corporate governance, ensuring that the Company places the right people in the right roles and to ensure that right things are being done to deliver value for all its stakeholders.

Further information on principal 1 which sets out how the business establishes a strategy and business model which promote long term value for shareholders, which is covered in the Strategy report on page 21.

The Board of Directors

As at 31 December 2019, the Board of Directors comprised six members: one Executive Director and five Non-Executive Directors including the Chairman, Mr David Hall. The Executive Director has a wealth of minerals exploration and development experience. Similarly, the Non-Executive Directors have extensive mineral and financial experience. Mr Owen Bavinton, Mr William Fisher and Mr Allan Walker are classified as Independent by the Toronto Stock Exchange.

Directors who have been appointed to the Company have been chosen because of the skills and experience they offer. The Board of Directors has strong, relevant experience across the areas of mining, geology, exploration and banking. The Board is satisfied that, between the Directors, it has an effective and appropriate balance of skills and experience, including in the areas of mining and exploration. All Directors receive regular and timely information on the Group's

operational and financial performance. Relevant information is circulated to the Directors in advance of meetings.

Skills and knowledge have been gained through aggregated experience in mining and the wider sector and these are maintained through ongoing involvement and participation within the industry.

The Board of Horizonte is responsible for setting the vision and strategy for the Company to deliver value to the Company's shareholders by effectively putting in place its business model.

The roles and responsibility of the Chairman, CEO and other directors are laid out below:

Chairman:

The primary responsibility of the chairman is to lead the Board effectively and to oversee the adoption, delivery and communication of the Company's corporate governance model. The chair has adequate separation from the day-to-day business to be able to make independent decisions. Save in exceptional (and well justified and explained) circumstances, the chair should not also fulfil the role of chief executive.

CEO:

The Company's CEO is charged with the delivery of the business model within the strategy set by the Board. The CEO works with the chair and NEDs in an open and transparent way and keeps the chair and NEDs up-to-date with operational performance, risks and other issues to ensure that the business remains aligned with the strategy.

Non-executive directors:

The Company's NEDs participate in all board level decisions and play a particular role in the determination and articulation of strategy. The Company's NEDs provide oversight and scrutiny of the performance of the executive directors, whilst both constructively challenging and inspiring them, thereby ensuring the business develops, communicates and executes the agreed strategy and operates within the risk management framework.

Board meetings

The Board ordinarily meets approximately on a quarterly basis and as and when further required, providing effective leadership and overall management of the Company's affairs by reference to those matters reserved for its decision. This includes the approval of the budget and business plan, major capital expenditure, acquisitions and disposals, risk management policies and the approval of the financial statements. Formal agendas, papers and reports are sent to the Directors in a timely manner, prior to the Board meetings. The Board delegates certain aspects of its responsibilities to the Board committees which have terms of reference as listed below.

Evaluating Board performance

Evaluation of the performance of the Company's Board has historically been implemented in an informal manner. From the beginning of 2018 however, the Board formally reviews and considers the performance of each director at or around the time of publication of the Company's annual report. The remuneration is determined in accordance with the Articles of Association. When determining executive director remuneration policy and practices, the Company's remuneration committee addresses the following:

- > Clarity – remuneration arrangements is transparent and promotes effective engagement with shareholders and the workforce;
- > Simplicity – remuneration structures avoid complexity and their rationale and operation are easy to understand;
- > Risk – remuneration arrangements ensure reputational and other risks from excessive rewards, and behavioural risks that can arise from target-based incentive plans, are identified and mitigated;
- > Proportionality – the link between individual awards, the delivery of strategy and the long-term performance of the Group should be clear. Outcomes do not reward poor performance;
- > Alignment to culture – incentive schemes drive behaviours consistent with company purpose, values and strategy.

On an ongoing basis, Board members maintain a watching brief to identify relevant internal and external candidates who may be suitable additions to or backup for current Board members.

Remuneration and audit committees

The remuneration committee comprises David Hall, William Fisher and Allan Walker and is responsible for reviewing the performance of the Executive Director and senior management and for setting the framework and broad policy for the scale and structure of their remuneration, taking into account all factors which it shall deem necessary. The remuneration committee also recommends the allocation of share options for the Board to approve and is responsible for setting up any performance criteria in relation to the exercise of options granted under any share options schemes adopted by the Group.

The audit committee, comprising Owen Bavinton, David Hall, William Fisher and Allan Walker, has primary responsibility for monitoring the quality of internal controls, ensuring that the financial performance of the Group is properly measured and reported on and for reviewing reports from the Group's auditors relating to the Group's accounting and internal controls.

Internal controls

The Board recognises the importance of both financial and non-financial controls and has reviewed the Group's control environment and any related shortfalls during the year. Since the Group was established, the Directors are satisfied that, given the current size and activities of the Group, adequate internal controls have been implemented. Whilst they are aware that no system can provide absolute assurance against material misstatement or loss, in light of the current activity and proposed future developments of the Group, continuing reviews of internal controls will be undertaken to ensure that they are adequate and effective.

Risk management

The Board considers risk assessment to be important in achieving its strategic objectives. The Board's current assessment of the principle risks are set out in the Strategic Report and are monitored by the Board at their meetings.

Securities trading

The Group has adopted a share dealing code for dealings in shares by Directors and senior employees which is appropriate for an AIM and TSX listed company. The Directors comply with relevant AIM and TSX rules relating to Directors' dealings and take reasonable steps to ensure compliance by the Group's applicable employees.

Relations with shareholders

The Board is committed to providing effective communication with the shareholders of the Group. Significant developments are disseminated through stock exchange announcements and regular updates on the Company website. The Board views the Annual General Meeting as a forum for communication between the Group and its shareholders and encourages their participation in its agenda. As part of the Group's AGM Horizonte releases the results of the votes in a transparent fashion to all of the Group's stakeholders.

In the occurrence where a significant proportion of votes (i.e. 20% and above) have been cast against a resolution at a general meeting, The Group will include an explanation of what actions it intends to take to understand the reasons behind that vote result, and, where appropriate, any different action it has taken, or will take, as a result.

Corporate Culture

The Board believes that the promotion of a corporate culture based on sound ethical values and behaviours is essential to maximise shareholder value. Horizonte's company culture is consistent with the Group's objectives, strategy and business model and is consistent with the Group's objectives, strategy and business model. The Board regularly meets and monitors the business and its stakeholders to ensure the values and strategy, and satisfy itself that these and its culture are aligned. The Group's directors act with integrity, lead by example and promote the desired culture.

Attendance at meetings during 2019

In carrying out its mandate, the Board met six times during the year ended 31 December 2019. The following table sets out attendance by the directors of the Group during those eight meetings of the Board:

Board Meeting Date	David Hall	Jeremy Martin	Allan Walker	Alex Christopher	Owen Bavinton	William Fisher
	Present					
21 February 2019	Y	Y	Y	Y	Y	Y
18 March 2019	Y	Y	Y	Y	Y	Y
9 May 2019	Y	Y	Y	Y	Y	Y
9 May 2019 (AGM)	Y	Y	Y	N	Y	N
12 September 2019	Y	Y	Y	Y	Y	Y
7 November 2019	Y	Y	Y	Y	Y	Y

The audit committee met twice during the year to consider the Audit planning report and Audit completion report presented by the auditors regarding the year end audit process. The year end audit findings were focused on the key areas identified during the planning process, the main items being:

- > Internal controls and management override
- > Carrying value and impairment of intangible exploration and evaluation assets
- > Accounting for the royalty finance agreement
- > Assessment recognition of contingent consolidation
- > Going concern

The audit committee were in agreement with all the findings and recommendations.

The remuneration committee met twice during the year to consider the remuneration levels of the board and key officers of the company, to consider and approve the basis of the long term incentive plan and to consider and award options to key members of the team.

Independent Auditor's Report to the Members of Horizonte Minerals Plc

Opinion

We have audited the financial statements of Horizonte Minerals plc (the 'Parent Company') and its subsidiaries (the 'Group') for the year ended 31 December 2019 which comprise the consolidated statement of comprehensive income, the consolidated and company statements of financial position, the consolidated and company statements of changes in equity, the consolidated and company statements of cash flows and notes to the financial statements including a summary of significant accounting policies.

The financial reporting framework that has been applied in the preparation of the financial statements is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union and, as regards the Parent Company financial statements, as applied in accordance with the provisions of the Companies Act 2006.

In our opinion:

- > the financial statements give a true and fair view of the state of the Group's and of the Parent Company's affairs as at 31 December 2019 and of the Group's loss for the year then ended;
- > the Group financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union;
- > the Parent Company financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union and as applied in accordance with the provisions of the Companies Act 2006; and
- > the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

Separate opinion in relation to IFRSs as issued by the IASB

As explained in note 2.1 to the Group financial statements, the Group in addition to complying with its legal obligation to apply IFRSs as adopted by the European Union, has also applied IFRSs as issued by the International Accounting Standards Board (IASB).

In our opinion the Group financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2019 and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with IFRSs as issued by the IASB.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the Group and the Parent Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard as applied to listed entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

- > the Directors' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- > the Directors have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the Group's or the Parent Company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) we identified, including those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit; and directing the efforts of the engagement team. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Carrying value of exploration and evaluation assets and mine development property

Key Audit Matter As detailed in notes 4.1, 10 and 11 to the financial statements, the group holds the Araguaia mine development property carried at a value of £32.3m and the Vermelho exploration and evaluation asset carried at a value of £6.8m.

Each year management are required to assess whether there are any indicators that the exploration and evaluation asset may be impaired. Management have carried out a review for indicators of impairment and have not identified any indicators.

In 2019 the Araguaia asset was reclassified from an exploration and evaluation asset to a mine development property. IFRS 6 requires that upon reclassification the asset is assessed for impairment. Management's impairment assessment indicated that no impairment was required.

Reviewing indicators of impairment and assessment of carrying values require significant estimates and judgements and therefore we identified this as a key audit matter.

Audit Response We have reviewed management's impairment assessments for both projects and our procedures included the following :

- > We considered whether management's assessments of impairment had been carried out in accordance with the requirements of IFRS.
- > We considered the appropriateness of management's decision to reclassify the Araguaia project to a mine development project, assessing the evidence of technical and commercial viability.
- > We reviewed the feasibility studies prepared by independent consultants for consistency with management's representations and assessed the competence and independence of the experts used by management.
 - For the Araguaia project, which is carried on the balance sheet at £32m this assessment is supported by the externally prepared feasibility study published in October 2018, which indicates a post-tax net present value of \$401m at a discount rate of 8%.
 - For the Vermelho project, which is carried on the balance sheet at £6.8m this assessment is supported by the externally prepared pre-feasibility study published in October 2019, which indicates a post-tax net present value of \$1.7bn at a discount rate of 8%.
- > For the Araguaia project we considered if key assumptions had changed unfavourable since the date of publication of the study. The study's results used a long term nickel price of \$14,000 per tonne. In December 2019 the long term consensus price was higher, at \$16,200 per tonne.
- > We agreed the validity of licences held by the Group to the Brazilian Government's DNPM website. We also reviewed the correspondence, contracts and other documents regarding the licenses to confirm that the Group has the relevant rights for its activities in the stated areas for Araguaia and Vermelho.
- > We evaluated the adequacy of the disclosures in respect of the assessment of impairment indicators for the exploration and evaluation asset and impairment assessment of the mine development project against the requirements of the accounting standards.

Key Observation Based on our work we concur with management's assessment of the carrying value of the Group's exploration and evaluation asset and mine development property.

Independent Auditor's Report to the Members of Horizonte Minerals Plc Continued

Recognition and valuation of contingent consideration

Key Audit Matter	<p>In prior years the Group acquired assets and licences relating to the Glencore Araguaia and Vermelho projects and these acquisitions gave rise to contingent consideration. Details of this contingent consideration and the related critical judgements and estimates are disclosed in notes 17 and 4.2.</p> <p>In late 2019, following the publication of the positive pre-feasibility study for Vermelho, the Company recognized US\$6m of contingent consideration payable to Vale S.A.</p> <p>The assessment of the contingent consideration payable requires management to make judgements regarding when they consider it probable that they will pay the consideration and estimates which determine the anticipated timing of when the consideration will become payable. Management are also required to reassess and adjust the contingent consideration payable for any changes in the accounting estimates as new information and events arises. For these reasons we identified this as a key audit matter.</p>
Audit Response	<p>Our work included:</p> <ul style="list-style-type: none"> > We have reviewed the terms and conditions of the acquisition agreements relating to the contingent consideration amounts payable and checked that the calculation of contingent considerations is in accordance with them. > We assessed management's basis for recognising the Vermelho contingent consideration in the year following the publication of the positive pre-feasibility study, including: <ul style="list-style-type: none"> ▪ We considered whether management's policy to recognise the cash settled contingent consideration when they assessed it to be probable that it would be paid was in accordance with IFRS. ▪ We considered whether management's judgement that the publication of the project's first financial feasibility study showing a high net present value to be an appropriate point to recognise the contingent consideration. > We have reviewed the contingent consideration calculations and estimates made by management. We have challenged the estimates, referring to supporting documentation and considered the sensitivity of the calculations to changes in the judgements and estimates. We have also checked the calculation of the accounting adjustments for changes in estimates, foreign exchange retranslation and the unwinding of the discount factor. > We evaluated the adequacy of the disclosures against the requirements of the accounting standards and to check that they have adequately explain the key judgements and estimates made by management.
Key Observation	<p>Based on our work we concur with management's assessment of the recognition and valuation of contingent consideration.</p>

Accounting for and valuation of the royalty funding agreement

Key Audit Matter	<p>During the year, Horizonte has entered into a US\$25m royalty funding agreement with Orion Mine Finance in exchange for future royalty payments linked to the future revenues of the Araguaia project. The royalty agreement includes a buyback option enabling Horizonte to reduce the royalty rate and other cash payment options (the call, make whole and put options) for part reduction in the royalty rate, which require the occurrence of certain events. Details of the agreement and the related critical judgements and estimates are disclosed in notes 18 and 4.4.</p> <p>The accounting for this agreement is complex and therefore management obtained advice from an independent expert. The accounting analysis concluded that the agreement is a hybrid contract that contains a non-derivative host loan and prepayment options in the form of embedded derivatives which should be separated for accounting purposes. The embedded derivatives are initially recognised at fair value and subsequently revalued at each period end. Management engaged an independent expert to calculate the fair value of the buyback option. The fair value calculation utilised Monte-Carlo simulation methodology.</p> <p>The call, make whole and put options can only be exercised if two specific events occur, being:</p> <ul style="list-style-type: none"> > A change of control and; > Commencement of major construction work after 31 March 2021. <p>Management assessed the probability of both of these events arising to be remote and have determined the valuation of these options at the inception of the loan and at the year end to be not material.</p> <p>Judgement was required in determining the accounting treatment of the royalty funding agreement and the approach to valuing the options. The valuation of these financial instruments also required management to make a number of key estimates. Accordingly, the accounting for the royalty funding agreement is considered to be a key audit matter.</p>
Audit Response	<p>Our procedures in relation to the accounting for and valuation of the royalty funding loan and embedded derivatives are set out below.</p> <p>In respect of the host loan:</p> <ul style="list-style-type: none"> > We reviewed the accounting analysis prepared by the expert, assessing its factual accuracy and basis for the technical analysis and we discussed the findings with management to understand their assessment of the analysis. We also consulted with our own technical experts as to the appropriateness of the proposed accounting treatment. > We assessed the competence and independence of the accounting experts used by management. > We tested the valuation model prepared by management, ensuring the model's methodology was in agreement with the royalty agreement and IFRS requirements and that the assumptions were in agreement with management's justifications and explanations. We also checked the arithmetical accuracy of the amortised loan model. > We critically assessed management's key assumptions, including long term nickel price, nickel price inflation and the adopted royalty rate by reference to independent sources of data and supporting documentation held by the Group. <p>In respect of the fair value of the buyback option:</p> <ul style="list-style-type: none"> > We reviewed the option valuation methodology adopted to check that the features of the option had been appropriately modelled and we also confirmed with management that the modelling is in line with their understanding of the option features. > We checked that the key assumptions used were in agreement with those used for the valuation of the host loan. The nickel price volatility is an additional key assumption for the option valuation. We recalculated the nickel price volatility using independently sourced data and it was in close proximity to that used by management. > The option valuation is sensitive to the nickel price volatility. Based on the features of the option management considered volatility based on five years historic nickel prices to be appropriate. We calculated an alternative reasonable volatility based on ten years and it was in close proximity, being 1% lower than the five year volatility. > We assessed the competence and independence of the valuation expert used by management. > We discussed the valuation with the expert and management to ensure that we understood the methodology that they had adopted and the rationale behind it. > We consulted with our own valuation experts on the methodology adopted and the reasonableness of the macroeconomic assumptions. <p>In respect of the call, make whole and put options:</p> <p>We discussed with management their basis for concluding that the probability of the events allowing exercise of these options was remote. We corroborated this by reference to press announcements, internal board minutes and other operational documentation and concluded that their assessment was appropriate and supported by the evidence.</p>
Key Observation	<p>Based on our work we concur with management's approach to the accounting for the royalty agreement, that the valuation methodology adopted for the host loan and the options is appropriate, and that the key assumptions adopted are reasonable and supported by available evidence.</p>

Independent Auditor's Report to the Members of Horizonte Minerals Plc Continued

Our application of materiality

We apply the concept of materiality both in planning and performing our audit and in evaluating the effect of misstatements. We consider materiality to be the magnitude by which misstatements, including omissions, could influence the economic decisions of reasonable users that are taken on the basis of the financial statements. In order to reduce to an appropriately low level the probability that any misstatements exceed materiality, we use a lower materiality level, performance materiality, to determine the extent of testing needed.

Our basis for the determination of materiality has remained unchanged from prior year. We consider total assets to be the most significant determinant of the group's financial performance as the group is engaged in mineral exploration and evaluation activities and the principal focus of the users is likely to be the total assets of the group. The benchmark percentage for calculating materiality was 1.5%, however, this was applied to a reduced total asset figure, reflecting that a significant amount of cash was held by the Group as a result of the £18.2m net proceeds from the royalty fund raising. Group financial statement materiality was set at £619,000 (2018:£630,000),

Each significant component of the group was audited to a lower level of materiality. The Parent Company's materiality was set at £557,000 (2018:£567,000), based on 90% of group materiality and the materiality of the subsidiary components ranged from £489,000 to £27,000 (2018:£567,000 to £61,000). These materiality levels were used to determine the financial statement areas that are included within the scope of our audit work and the extent of sample sizes during the audit.

Performance materiality is the application of materiality at the individual account or balance level set at an amount to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds materiality. Performance materiality was set at 75% (2018: 75%) of the above materiality levels. We agreed with the audit committee that we would report to the committee all individual audit differences identified during the course of our audit in excess of £10,800 (2018: £30,500). We also agreed to report differences below these thresholds that, in our view warranted reporting on qualitative grounds.

An overview of the scope of our audit

Our group audit was scoped by obtaining an understanding of the group and its environment, including the group's system of internal control, and assessing the risks of material misstatement in the financial statements at the group level.

Whilst Horizonte Minerals Plc is a company registered in England & Wales and its head office is located in the UK the group's principal operations are located in Brazil. In approaching the audit, we considered how the group is organised and managed. We assessed the activities of the group as being two nickel projects, Araguaia and Vermelho and primarily comprising a number of Brazilian subsidiary entities holding a mine development property and exploration and evaluation assets.

Our group audit scope focused on the group's principal operating subsidiaries, being Araguaia Niquel Mineracao Ltda and Typhon Brasil Mineracao Ltda, which were subject to a full scope audit together with the parent company. In addition, Trias Brasil Mineracao Ltda and Lontra Empr. e Participacoes Ltda, also Brazilian operating subsidiaries were subject to specific audit procedures on the significant risk areas. BDO LLP performed the audit of the parent company and the BDO network member firm in Portugal performed the audits and specific audit procedures for the Brazilian components.

The remaining components of the group were considered non-significant and these components were principally subject to analytical review procedures, together with additional substantive testing over the risk areas detailed above where applicable to that component.

The Group audit team was actively involved in the direction of the audits and specific audit procedures performed by the component auditor along with the consideration of findings and determination of conclusions drawn. As part of our audit strategy, we issued group audit engagement instructions and discussed the instructions with the component auditor. A senior member of the group audit team met with the component auditor and local management performed a review of the component audit files and we discussed the audit findings with the component auditor. For the four principal operating subsidiaries in Brazil the group audit team also performed audit procedures in respect of the significant risk areas.

Other information

The Directors are responsible for the other information. The other information comprises the information included in the annual report other than the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. 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.

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- > the information given in the strategic report and the Directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- > the strategic report and the Directors' report have been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

In the light of the knowledge and understanding of the Group and the Parent Company and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or the Directors' report.

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- > adequate accounting records have not been kept by the Parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- > the Parent Company financial statements are not in agreement with the accounting records and returns; or
- > certain disclosures of Directors' remuneration specified by law are not made; or
- > we have not received all the information and explanations we require for our audit.

Responsibilities of Directors

As explained more fully in the Statement of Directors' Responsibilities, the Directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing the Group's and the Parent Company'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 the Parent Company or to cease operations, or have no realistic alternative but to do so.

Independent Auditor's Report to the Members of Horizonte Minerals Plc Continued

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the 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. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Use of our report

This report is made solely to the Parent Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Parent Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Parent Company and the Parent Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

BDO LLP

Stuart Barnsdall (Senior Statutory Auditor)
For and on behalf of BDO LLP, Statutory Auditor
London, UK
7 April 2020

BDO LLP is a limited liability partnership registered in England and Wales (with registered number OC305127).


Consolidated Statement of Financial Position

Company number: 05676866
As at 31 December 2019

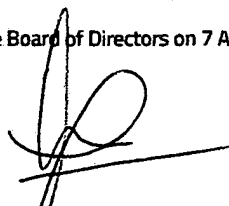
	Notes	31 December 2019 £	31 December 2018 £
Assets			
Non-current assets			
Intangible assets	10	7,057,445	35,737,902
Property, plant & equipment	11	32,260,544	1,186
		39,317,989	35,739,088
Current assets			
Trade and other receivables		134,726	24,243
Derivative financial asset	18	2,246,809	—
Cash and cash equivalents	12	17,760,330	6,527,115
		20,141,865	6,551,358
Total assets		59,459,854	42,290,446
Equity and liabilities			
Equity attributable to owners of the parent			
Share capital	13	14,463,773	14,325,218
Share premium	14	41,785,306	41,664,018
Other reserves	16	(4,666,930)	(2,039,991)
Retained losses		(19,835,092)	(16,990,290)
Total equity		31,747,057	36,958,955
Liabilities			
Non-current liabilities			
Contingent consideration	17	6,246,071	3,461,833
Royalty Finance	18	20,570,411	—
Deferred tax liabilities	9	212,382	228,691
		27,028,864	3,690,524
Current liabilities			
Trade and other payables	17	683,933	280,175
Deferred Consideration	17	—	1,360,792
		683,933	1,640,967
Total liabilities		27,712,864	5,331,491
Total equity and liabilities		59,459,854	42,290,446

The above Consolidated Statement of Financial Position should be read in conjunction with the accompanying notes.

The Financial Statements were authorised for issue by the Board of Directors on 7 April 2020 and were signed on its behalf.



David J Hall
Chairman



Jeremy J Martin
Chief Executive Officer

Company Statement of Financial Position

Company number: 05676866
As at 31 December 2019

	Notes	31 December 2019 £	31 December 2018 £
Non-Current Assets			
Property, plant & equipment	11	—	—
Investment in subsidiaries	26	2,348,042	2,348,042
Loans to Subsidiaries	27	55,413,147	49,478,251
		57,761,189	51,826,293
Current assets			
Trade and other receivables		135,376	19,388
Cash and cash equivalents	12	17,393,773	5,487,339
		17,529,149	5,506,727
Total assets		75,290,338	57,333,020
Equity and liabilities			
Equity attributable to equity shareholders			
Share capital	13	14,463,773	14,325,218
Share premium	14	41,785,306	41,664,018
Merger reserve	16	10,888,760	10,888,760
Retained losses		(16,564,099)	(14,852,732)
Total equity		50,573,740	52,025,264
Liabilities			
Non-current liabilities			
Contingent consideration	17	6,246,071	3,461,833
		6,246,071	3,461,833
Current liabilities			
Trade and other payables	17	735,518	485,131
Loans from subsidiary		17,735,009	—
Deferred Consideration	17	—	1,360,792
		18,470,527	1,845,923
Total liabilities		24,716,598	5,307,756
Total equity and liabilities		75,290,338	57,333,020

The above Company Statement of Financial Position should be read in conjunction with the accompanying notes, loss for the period was £2,037,780 (2018:£1,782,260). As permitted by section 408 of the Companies Act 2006, the statement of comprehensive income of the Parent Company is not presented as part of these Financial Statements.

The Financial Statements were authorised for issue by the Board of Directors on 7 April 2020 and were signed on its behalf.



David J Hall
Chairman



Jeremy J Martin
Chief Executive Officer

Statement of Changes in Equity

For the year ended 31 December 2019

	Attributable to owners of the parent				
	Share capital £	Share premium £	Retained losses £	Other reserves £	Total £
Consolidated					
As at 1 January 2018	13,719,343	40,422,258	(15,887,801)	988,015	39,241,815
Loss for the year	—	—	(1,939,663)	—	(1,939,663)
Other comprehensive income:					
Currency translation differences on translating foreign operations	—	—	—	(3,028,006)	(3,028,006)
Total comprehensive income for the year	—	—	(1,939,663)	(3,028,006)	(4,967,669)
Issue of ordinary shares	605,875	1,451,724	—	—	2,057,599
Issue costs	—	(209,964)	—	—	(209,964)
Share-based payments	—	—	837,172	—	837,172
Total transactions with owners, recognised directly in equity	605,875	1,241,760	837,172	—	2,684,807
As at 31 December 2018	14,325,218	41,664,018	(16,990,290)	(2,039,991)	36,958,955
Loss for the year	—	—	(3,171,214)	—	(3,171,214)
Other comprehensive income:					
Currency translation differences on translating foreign operations	—	—	—	(2,626,939)	(2,626,939)
Total comprehensive income for the year	—	—	(3,171,214)	(2,626,939)	(5,798,153)
Issue of ordinary shares	138,555	121,288	—	—	259,843
Issue costs	—	—	—	—	—
Share-based payments	—	—	326,413	—	326,413
Total transactions with owners, recognised directly in equity	138,555	121,288	326,413	—	586,256
As at 31 December 2019	14,463,773	41,785,306	(19,835,092)	(4,666,930)	31,747,057

A breakdown of other reserves is provided in note 16.

	Attributable to equity shareholders				
	Share capital £	Share premium £	Retained losses £	Merger reserves £	Total £
Company					
As at 1 January 2018	13,719,343	40,422,258	(13,907,644)	10,888,760	(51,122,717)
Profit and total comprehensive income for the year	—	—	(1,782,260)	—	(1,782,260)
Issue of ordinary shares	605,875	1,451,724	—	—	2,057,599
Issue costs	—	(209,964)	—	—	(209,964)
Share-based payments	—	—	837,172	—	837,172
Total transactions with owners, recognised directly in equity	605,875	1,241,760	837,172	—	2,684,807
As at 31 December 2018	14,325,218	41,664,018	(14,852,732)	10,888,760	52,025,264
Profit and total comprehensive income for the year	—	—	(2,037,780)	—	(2,037,780)
Issue of ordinary shares	138,555	121,288	—	—	259,843
Issue costs	—	—	—	—	—
Share-based payments	—	—	326,413	—	326,413
Total transactions with owners, recognised directly in equity	138,555	121,288	(1,711,367)	—	(1,451,524)
As at 31 December 2019	14,463,773	41,785,306	(16,564,099)	10,888,760	50,573,740

The above Statements of Changes in Equity should be read in conjunction with the accompanying notes.

Consolidated Statement of Cash Flows

For the year ended 31 December 2019

	Notes	31 December 2019 £	31 December 2018 £
Cash flows from operating activities			
Loss before taxation		(3,171,214)	(1,939,663)
Finance income		(110,036)	(89,446)
Finance costs		933,351	181,442
Charge for share options granted		326,413	837,172
Exchange differences		(77,072)	(313,049)
Change in fair value of contingent consideration		(598,660)	(139,392)
Depreciation		—	—
Operating loss before changes in working capital		(2,697,218)	(1,462,136)
Decrease/(increase) in trade and other receivables		(110,483)	128,862
Increase/(decrease) in trade and other payables		403,758	(456,109)
Net cash used in operating activities		(2,403,943)	(1,790,183)
Cash flows from investing activities			
Purchase of exploration and evaluation assets		(3,992,757)	(3,221,062)
Purchase of property, plant and equipment		(238,701)	—
Interest received		110,036	89,446
Net cash used in investing activities		(4,121,422)	(3,131,616)
Cash flows from financing activities			
Proceeds from issue of royalty funding		18,241,205	—
Proceeds from issue of ordinary shares		—	2,057,599
Issue costs		—	(209,965)
Net cash generated from financing activities		18,241,205	1,847,634
Net increase/(decrease) in cash and cash equivalents		11,715,840	(3,074,164)
Cash and cash equivalents at beginning of year		6,527,825	9,403,825
Exchange gain/(loss) on cash and cash equivalents		(482,625)	197,454
Cash and cash equivalents at end of the year	12	17,760,330	6,527,115

On the 24 January 2019 the Company issued 13,855,487 as a non cash settlement for \$330,000 of deferred contingent consideration

The above Consolidated Statement of Cash Flows should be read in conjunction with the accompanying notes.

Company Statement of Cash Flows

For year ended 31 December 2019

	Notes	31 December 2019 £	31 December 2018 £
Cash flows from operating activities			
Profit before taxation		(2,037,780)	(1,782,260)
IFRS9 Expected credit loss		440,579	1,939,745
Finance income		(78,420)	(74,909)
Finance costs		344,952	181,442
Charge for share options granted		326,413	837,172
Exchange differences		(64,047)	(40,661)
Change in fair value of contingent consideration		(598,660)	(139,392)
Depreciation		—	—
Operating profit before changes in working capital		(1,666,961)	921,137
Increase in trade and other receivables		(116,049)	22,446
Increase in trade and other payables		250,387	(328,111)
Net cash flows generated from operating activities		(1,532,625)	(615,472)
Cash flows from investing activities			
Loans to subsidiary undertakings		(4,353,284)	(6,475,397)
Interest received		78,420	74,909
Net cash used in investing activities		(4,274,864)	(6,400,488)
Cash flows from financing activities			
Proceeds from grant of Royalty		18,241,205	—
Proceeds from issue of ordinary shares		—	2,057,599
Issue costs		—	(209,965)
Net cash generated from financing activities		18,241,205	1,847,634
Net increase/(decrease) in cash and cash equivalents		12,433,716	(3,937,382)
Exchange gain/(loss) on cash and cash equivalents		(527,342)	185,954
Cash and cash equivalents at beginning of year		5,487,399	9,238,827
Cash and cash equivalents at end of the year	12	17,393,773	5,487,399

On the 24 January 2019 the Company issued 13,855,487 as a non cash settlement for \$330,000 of deferred contingent consideration

The above Company Statement of Cash Flows should be read in conjunction with the accompanying notes.

Notes to the Financial Statements

1 General information

The principal activity of Horizonte Minerals Plc ("the Company") and its subsidiaries (together "the Group") is the exploration and development of base metals. The Company's shares are listed on the AIM market of the London Stock Exchange and on the Toronto Stock Exchange. The Company is incorporated and domiciled in England and Wales. The address of its registered office is Rex House, 4-12 Regents Street, London, SW1Y 4RG.

2 Summary of significant accounting policies

The principal accounting policies applied in the preparation of these Financial Statements are set out below. These policies have been consistently applied to all the years presented.

2.1 Basis of preparation

These Financial Statements have been prepared in accordance with International Financial Reporting Standards ("IFRSs") and IFRS interpretations Committee ("IFRS IC") interpretations as adopted by the European Union ("EU") and with IFRS and their Interpretations issued by the IASB. The consolidated financial statements have also been prepared in accordance with and those parts of the Companies Act 2006 applicable to companies reporting under IFRS. The Financial Statements have been prepared under the historical cost convention as modified by the revaluation of share based payment charges which are assessed annually.

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's Accounting Policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the Financial Statements, are disclosed in Note 4.

2.2 Going concern

The Group's business activities together with the factors likely to affect its future development, performance and position are set out in the Chairman's Statement on pages 5 and 6; in addition note 3 to the Financial Statements includes the Group's objectives, policies and processes for managing its capital; its financial risk management objectives; details of its financial instruments and its exposure to credit and liquidity risk.

The Financial Statements have been prepared on a going concern basis. Although the Group's assets are not generating revenues and an operating loss has been reported, the Directors consider that the Group has sufficient funds to undertake its operating activities for a period of at least the next 12 months including any additional expenditure required in relation to its current exploration projects. The Group has cash reserves which are considered sufficient by the Directors to fund the Group's committed expenditure both operationally and on its exploration project for the foreseeable future. However, as additional projects are identified and the Araguaia project moves towards production, additional funding will be required.

The uncertainty as to the future impact of the Covid-19 pandemic has been considered as part of the Group's adoption of the going concern basis. In response to government instructions the Group's offices in London and Brazil have been closed with staff working from home, international travel has stopped and all site work for the two projects has been restricted to a minimum level. However, a number of the key project milestones are still advancing and are currently on track being run by the teams in a virtual capacity.

Whilst the board considers that the effect of Covid-19 on the Group's financial results at this time is constrained to inefficiencies due to remote working, restrictions on travel and some minor potential delays to consultants work streams, the Board considers the pandemic could delay the Araguaia project financing timeline by a number of months (this will be dependent on the duration of the effects of the Covid-19 virus across global markets). In response to any potential delay management has prepared a revised cashflow forecast for the next 24 months reflecting potential cost cutting in the parent company relating to reduced travel and lower levels of investor relations and marketing activities together with delaying certain costs for the Araguaia project. This forecast indicates that the Group has sufficient cash to survive beyond the next 24 months and it will be adopted should the Araguaia project financing not be able to be progressed as quickly as anticipated.

As a result of considerations noted above, the Directors have a reasonable expectation that the Group and Company have adequate resources to continue in operational existence for the foreseeable future. Thus, they continue to adopt the going concern basis of accounting in preparing these Financial Statements.

2.3 Changes in accounting policy and disclosures

a) New and amended standards adopted by the Group

New standards impacting the Group that are adopted in the annual financial statements for the year ended 31 December 2019, are:

Standard	Detail	Effective date
IFRS 16	Leases	1 January 2019
IFRS 11	Amendment – annual improvements 2015-2017 cycle	1 January 2019
IAS 19	Amendment – regarding plan amendments, curtailments or settlements	1 January 2019
IAS 23	Amendment – annual improvements 2015-2017 cycle	1 January 2019
IAS 28	Amendment – regarding long-term interests in associates and joint ventures	1 January 2019
IFRIC 23	Uncertainty over income tax treatments	1 January 2019

IFRS 16, Leases

IFRS 16, which supersedes IAS 17, sets out principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract, i.e. the customer ("lessee") and the supplier ("lessor"). Lessee accounting has changed substantially under this new standard while there is little change for the lessor. IFRS 16 has removed the classification of leases as either operating leases or financing leases and, instead, introduced a single lessee accounting model. A lessee is required to recognise assets and liabilities for all leases with a term of more than 12 months (unless the underlying asset is of low value) and is required to present depreciation of leased assets separately from interest on lease liabilities in the Consolidated Statement of Comprehensive Income. A lessor continues to classify its leases as operating leases or financing leases, and to account for those two types of leases separately.

On 1 January 2019, the Group adopted IFRS 16. The Group has reviewed its contracts and agreements and concluded the only leases held by the Group relate to short term office leases which are not considered material to these financial statements. The impact of IFRS 16 is therefore nil on both current and prior periods.

b) New and amended standards, and interpretations issued but not yet effective for the financial year beginning 1 January 2019 and not early adopted

Standards effective in future periods

Certain new standards, amendments and interpretations to existing standards have been published that are relevant to the group's activities and are mandatory for the group in accounting periods beginning after 1 January 2019 or later periods and which the group has decided not to adopt early.

These include:

Standard	Detail	Effective date
IFRS 17	Insurance contracts	1 January 2021
IAS 1	Amendment – regarding the definition of material	1 January 2020
IAS 1	Amendment – regarding the classification of liabilities	1 January 2022
	Amendment – References to the Conceptual Framework in IFRS Standards	1 January 2020
IFRS 3	Amendment – Business Combination: Definition of a Business	1 January 2020
IFRS 9, 7 & IAS 37	Amendments – Interest Rate Benchmark Reform	1 January 2020

The directors do not expect that the adoption of the Standards listed above will have a material impact on the financial statements of the Group in future periods.

2.4 Basis of consolidation and business acquisitions

Horizonte Minerals Plc was incorporated on 16 January 2006. On 23 March 2006 Horizonte Minerals Plc acquired the entire issued share capital of Horizonte Exploration Limited (HEL) by way of a share for share exchange. The transaction was treated as a group reconstruction and was accounted for using the merger accounting method as the entities were under common control before and after the acquisition.

Subsidiaries are entities controlled by the Group. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

The Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

- > The contractual arrangement with the other vote holders of the investee.
- > Rights arising from other contractual arrangements.
- > The Group's voting rights and potential voting rights.

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

Other than for the acquisition of HEL as noted above, the Group uses the acquisition method of accounting to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair value of the assets transferred, the liabilities incurred and the equity interests issued by the Group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. Acquisition-related costs are expensed as incurred unless they result from the issuance of shares, in which case they are offset against the premium on those shares within equity.

If an acquisition is achieved in stages, the acquisition date carrying value of the acquirer's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date through profit or loss.

Any contingent consideration to be transferred by the Group is recognised at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or a liability is recognised in accordance with IFRS9 either in profit or loss or as a change in other comprehensive income. The unwinding of the discount on contingent consideration liabilities is recognised as a finance charge within profit or loss. Contingent consideration that is classified as equity is not remeasured, and its subsequent settlement is accounted for within equity.

The excess of the consideration transferred and the acquisition date fair value of any previous equity interest in the acquiree over the fair value of the Group's share of the identifiable net assets acquired is recorded as goodwill. If this is less than the fair value of the net assets of the subsidiary acquired in the case of a bargain purchase, the difference is recognised directly in profit or loss.

Inter-company transactions, balances and unrealised gains on transactions between Group companies are eliminated. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with policies adopted by the Group.

Investments in subsidiaries are accounted for at cost less impairment.

The following 100% owned subsidiaries have been included within the consolidated Financial Statements:

Subsidiary undertaking	Held	Registered Address	Country of incorporation	Nature of business
Horizonte Exploration Ltd	Directly	Rex House, 4-12 Regents Street, London SW1Y 4RG	England	Mineral Exploration
Horizonte Minerals (IOM) Ltd	Indirectly	1st Floor, Viking House, St Pauls Square, Ramsey, IM8 1GB, Ilse of Man	Isle of Man	Holding company
HM Brazil (IOM) Ltd	Indirectly	1st Floor, Viking House, St Pauls Square, Ramsey, IM8 1GB, Ilse of Man	Isle of Man	Holding company
Cluny (IOM) Ltd	Indirectly	1st Floor, Viking House, St Pauls Square, Ramsey, IM8 1GB, Ilse of Man	Isle of Man	Holding company
Champol (IOM) Ltd	Indirectly	1st Floor, Viking House, St Pauls Square, Ramsey, IM8 1GB, Ilse of Man	Isle of Man	Holding company
Horizonte Nickel (IOM) Ltd	Indirectly	1st Floor, Viking House, St Pauls Square, Ramsey, IM8 1GB, Ilse of Man	Isle of Man	Holding company
Nickel Production Services B.V	Directly	Atrium Building, 8th floor, Strawinskylaan 3127, 1077 ZX, Amsterdam	The Netherlands	Provision of financial services
HM do Brasil Ltda	Indirectly	CNPJ 07.819.038/0001-30 com sede na Avenida Amazonas, 2904, loja 511, Bairro Prado, Belo Horizonte – MG. CEP: 30.411-186	Brazil	Mineral Exploration
Araguaia Niquel Metias Ltda	Indirectly	CNPJ 97.515.035/0001-03 com sede na Avenida Amazonas, 2904, loja 511, Bairro Prado, Belo Horizonte – MG. CEP: 30.411-186	Brazil	Mineral Exploration
Lontra Empreendimentos e Participações Ltda	Indirectly	CNPJ 11.928.960/0001-32 com sede na Avenida Amazonas, 2904, loja 511, Bairro Prado, Belo Horizonte – MG. CEP: 30.411-186	Brazil	Mineral Exploration

Subsidiary undertaking	Held	Registered Address	Country of incorporation	Nature of business
Typhon Brasil Mineração Ltda	Indirectly	CNPJ 23.282.640/0001-37 com sede Alameda Ezequiel Dias, n. 427, 2º andar, bairro Funcionários, Município de Belo Horizonte, Estado de Minas Gerais, CEP 30.130-110.	Brazil	Mineral Exploration
Trias Brasil Mineração Ltda	Indirectly	CNPJ 23.282.280/0001-73 com sede na Alameda Ezequiel Dias, n. 427, 2º andar, bairro Funcionários, Município de Belo Horizonte, Estado de Minas Gerais, CEP 30.130-110	Brazil	Mineral Exploration

2.4 (b) Subsidiaries and Acquisitions

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company (its subsidiaries) made up to 31 December each year. Control is recognised where an investor is expected, or has rights, to variable returns from its investment with the investee, and has the ability to affect these returns through its power over the investee. Based on the circumstances of the acquisition an assessment will be made as to whether the acquisition represents an acquisition of an asset or the acquisition of asset. In the event of a business acquisition, the assets, liabilities and contingent liabilities of a subsidiary are measured at their fair value at the date of acquisition. Any excess of the cost of the acquisition over the fair values of the identifiable net assets acquired is recognised as a "fair value" adjustment.

If the cost of the acquisition is less than the fair value of net assets of the subsidiary acquired, the difference is recognised directly in profit or loss. In the event of an asset acquisition assets and liabilities are assigned a carrying amount based on relative fair value.

The results of subsidiaries acquired or disposed of during the year are included in the statement of comprehensive income from the effective date of acquisition or up to the effective date of disposal, as appropriate.

Where necessary, adjustments are made to the financial statements of subsidiaries to bring the accounting policies into line with those used by the Group.

Contingent consideration as a result of business acquisitions is included in cost at its acquisition date assessed value and, in the case of contingent consideration classified as a financial liability, remeasured subsequently through the profit and loss.

2.5 Intangible Assets

(a) Goodwill

Goodwill represents the excess of the cost of an acquisition over the fair value of the Group's share of the net identifiable assets, liabilities and contingent liabilities of the acquired subsidiary at the date of acquisition. Goodwill arising on the acquisition of subsidiaries is included in "intangible assets". Goodwill is tested annually for impairment and carried at cost less accumulated impairment losses. Impairment losses on goodwill are not reversed. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

Goodwill is allocated to cash generating units for the purpose of impairment testing. The allocation is made to those cash-generating units or groups of cash-generating units that are expected to benefit from the business combination in which the goodwill arose, identified according to operating segment.

(b) Exploration and evaluation assets

The Group capitalises expenditure in relation to exploration and evaluation of mineral assets when the legal rights are obtained and are initially valued and subsequently carried at cost less any subsequent impairment. Expenditure included in the initial measurement of exploration and evaluation assets and which are classified as intangible assets relate to the acquisition of rights to explore, topographical, geological, geochemical and geophysical studies, exploratory drilling, trenching, sampling and activities to evaluate the technical feasibility and commercial viability of extracting a mineral resource.

Exploration and evaluation assets arising on business combinations are included at their acquisition-date fair value in accordance with IFRS 3 (revised) "Business combinations". Other exploration and evaluation assets and all subsequent expenditure on assets acquired as part of a business combination are recorded and held at cost.

Exploration and evaluation assets are assessed for impairment when facts and circumstances suggest that the carrying amount of an asset may exceed its recoverable amount. The assessment is carried out by allocating exploration and evaluation assets to cash generating units, which are based on specific projects or geographical areas.

Impairment reviews for deferred exploration and evaluation expenditure are carried out on a project by project basis, with each project representing a potential single cash generating unit. In accordance with the requirements of IFRS 6, an impairment review is undertaken when indicators of impairment arise such as:

- (i) unexpected geological occurrences that render the resource uneconomic;
- (ii) title to the asset is compromised;
- (iii) variations in mineral prices that render the project uneconomic;
- (iv) substantive expenditure on further exploration and evaluation of mineral resources is neither budgeted nor planned; and
- (v) the period for which the Group has the right to explore has expired and is not expected to be renewed.

See note 2.7 for impairment review process if impairment indicators are identified.

Whenever the exploration for and evaluation of mineral resources does not lead to the discovery of commercially viable quantities of mineral resources or the Group has decided to discontinue such activities of that unit, the associated expenditures are written off to profit or loss. Whenever a commercial discovery is the direct result of the exploration and evaluation assets, upon the decision to proceed with development of the asset and initial funding arrangements are in place the costs shall be transferred to a Mine Development asset within property, plant and equipment.

(c) Acquisitions of Mineral Exploration Licences

Acquisitions of Mineral Exploration Licences through acquisition of non-operational corporate structures that do not represent a business, and therefore do not meet the definition of a business combination, are accounted for as the acquisition of an asset and recognised at the fair value of the consideration. Related future consideration if contingent is recognised if it is considered that it is probable that it will be paid.

2.6 Property, plant and equipment

Mine development property

Following determination of the technical feasibility and commercial viability of a mineral resource, the relevant expenditure is transferred from exploration and evaluation assets to mine development property.

Further development costs are capitalised to mine development properties, if and only if, it is probable that future economic benefits associated with the item will flow to the entity and the cost can be measured reliably. Cost is defined as the purchase price and directly attributable costs. Once the asset is considered to be capable of operating in a manner intended by management, commercial production is declared, and the relevant costs are depreciated. Evaluated mineral property is carried at cost less accumulated depreciation and accumulated impairment losses.

Short lived Property, plant and equipment

All other property, plant and equipment is stated at historic cost less accumulated depreciation. Historic cost includes expenditure that is directly attributable to the acquisition of the items.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. All repairs and maintenance costs are charged to profit or loss during the financial period in which they are incurred.

Depreciation and amortisation

Mine development property is not depreciated prior to commercial production but is reviewed for impairment annually (see "Impairment of assets" section below). Upon commencement of commercial production, mine development property is transferred to a mining property and is depreciated on a units-of-production basis. Only proven and probable reserves are used in the tonnes mined units of production depreciation calculation.

Depreciation is charged on a straight-line basis for all other property, plant and equipment, so as to write off the cost of assets, over their estimated useful lives, using the straight-line method, on the following bases:

Office equipment	25%
Vehicles and other field equipment	25% – 33%

The asset's residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

An asset's carrying amount is written down immediately to its recoverable amount if the assets carrying amount is greater than its estimated recoverable amount.

2.7 Impairment of non-financial assets

Assets that have an indefinite useful life, such as goodwill are not subject to amortisation and are tested annually for impairment. Exploration assets and property, plant and equipment are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash generating units). Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at each reporting date.

2.8 Foreign currency translation

(a) Functional and presentation currency

Items included in the Financial Statements of the Group's entities are measured using the currency of the primary economic environment in which the entity operates (the 'functional currency'). The functional currency of the UK and Isle of Man entities is Pounds Sterling and the functional currency of the Brazilian entities is Brazilian Real. The functional currency of the project financing subsidiary incorporated in the Netherlands is USD. The Consolidated Financial Statements are presented in Pounds Sterling, rounded to the nearest pound, which is the Company's functional and Group's presentation currency.

(b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where such items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

(c) Group companies

The results and financial position of all the Group's entities (none of which has the currency of a hyperinflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

1. assets and liabilities for each statement of financial position presented are translated at the closing rate at the date of that statement of financial position;
2. each component of profit or loss is translated at average exchange rates during the accounting period (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the dates of the transactions); and
3. all resulting exchange differences are recognised in other comprehensive income.

On consolidation, exchange differences arising from the translation of the net investment in foreign entities, and of monetary items receivable from foreign subsidiaries for which settlement is neither planned nor likely to occur in the foreseeable future are taken to other comprehensive income. When a foreign operation is sold, such exchange differences are recognised in profit or loss as part of the gain or loss on sale.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and retranslated at the end of each reporting period.

2.9 Financial instruments

Financial instruments are measured as set out below. Financial instruments carried on the statement of financial position include cash and cash equivalents, trade and other receivables, trade and other payables and loans to group companies.

Financial instruments are initially recognised at fair value when the group becomes a party to their contractual arrangements. Transaction costs directly attributable to the instrument's acquisition or issue are included in the initial measurement of financial assets and financial liabilities, except financial instruments classified as at fair value through profit or loss (FVTPL). The subsequent measurement of financial instruments is dealt with below.

Financial assets

On initial recognition, a financial asset is classified as:

- > Amortised cost;
- > Fair value through other comprehensive income (FVTOCI) — equity instruments; or
- > FVTPL.

The group does not currently have any financial assets classified as FVTOCI.

Fair value through profit or loss

This category comprises in-the-money derivatives. They are carried in the statement of financial position at fair value with changes in fair value recognised in the profit loss statement.

Amortised cost

Financial assets that arise principally from assets where the objective is to hold these assets in order to collect contractual cash flows and the contractual cash flows are solely payments of principal and interest. They are initially recognised at fair value plus transaction costs that are directly attributable to their acquisition or issue, and are subsequently carried at amortised cost using the effective interest rate method, less provision for impairment.

Any gain or loss arising on derecognition is recognised directly in profit or loss and presented in other gains or losses, together with foreign exchange gains or losses. Impairment losses are presented as separate line item in the statement of profit or loss. A gain or loss on a debt investment that is subsequently measured at FVTPL is recognised in profit or loss and presented net within other gains or losses in the period in which it arises. On derecognition of a financial asset, the difference between the proceeds received or receivable and the carrying amount of the asset is included in profit or loss.

Financial assets at amortised cost consist of trade receivables and other receivables (excluding taxes), cash and cash equivalents, and related party intercompany loans.

Impairment provisions for receivables and loans to related parties are recognised based on a forward looking expected credit loss model. The methodology used to determine the amount of the provision is based on whether there has been a significant increase in credit risk since initial recognition of the financial asset. For those where the credit risk has not increased significantly since initial recognition of the financial asset, twelve month expected credit losses along with gross interest income are recognised. For those for which credit risk has increased significantly, lifetime expected credit losses along with the gross interest income are recognised. For those that are determined to be credit impaired, lifetime expected credit losses along with interest income on a net basis are recognised.

Cash and cash equivalents

Cash and cash equivalents are carried in the statement of financial position at cost. For the purpose of the cash flow statement, cash and cash equivalents comprise cash on hand, deposits held at call with banks, other short term highly liquid investments with a maturity of three months or less at the date of purchase and bank overdrafts. In the statement of financial position, bank overdrafts are included in borrowings in current liabilities.

Financial liabilities

The Group classifies its financial liabilities into one of two categories, depending on the purpose for which the liability was acquired.

Fair value through profit or loss

The group does not currently have any financial liabilities carried at Fair value through Profit and loss.

Other financial liabilities

Financial liabilities are subsequently measured at amortised cost using the effective interest method, except for financial liabilities designated at fair value through profit or loss, that are carried subsequently at fair value with gains and losses recognised in the profit and loss statement.

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period.

The Group's financial liabilities initially measured at fair value and subsequently recognised at amortised cost include accounts payables and accrued liabilities as well as the Group's Royalty liability.

2.10 Taxation

The tax credit or expense for the period comprises current and deferred tax. Tax is recognised in the Income Statement, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. In this case, the tax is also recognised in other comprehensive income or directly in equity, respectively.

The charge for current tax is calculated on the basis of the tax laws enacted or substantively enacted by the end of the reporting period in the countries where the company and its subsidiaries operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred tax is accounted for using the liability method in respect of temporary differences arising from differences between the carrying amount of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit. However, deferred tax liabilities are not recognised if they arise from the initial recognition of goodwill; deferred tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss.

Deferred tax liabilities are recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Deferred tax assets are recognised on tax losses carried forward to the extent that the realisation of the related tax benefit through future taxable profits is probable.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries and associates, and interests in joint ventures, except where the Company 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 and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred tax assets and liabilities relate to taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

Deferred tax is calculated at the tax rates (and laws) that have been enacted or substantively enacted by the Statement of Financial Position date and are expected to apply to the period when the asset is realised or the liability is settled.

Deferred tax assets and liabilities are not discounted.

2.11 Share capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new ordinary shares or options are shown in equity as a deduction, net of tax, from the proceeds.

2.12 Trade payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Accounts payable are classified as current liabilities if payment is due within one year or less. If not, they are presented as non-current liabilities.

Trade payables are initially recognised at fair value and subsequently measured at amortised cost using the effective interest method.

2.13 Leases

All leases are accounted for by recognising a right-of-use assets due to a lease liability except for:

- > Lease of low value assets; and
- > Leases with duration of 12 months or less

The Group only has such short duration leases and lease payments are charged to the income statement.

2.14 Share-based payments and incentives

The Group operates equity-settled, share-based compensation plans, under which the entity receives services from employees as consideration for equity instruments (options) of the Group. The fair value of employee services received in exchange for the grant of share options are recognised as an expense. The total expense to be apportioned over the vesting period is determined by reference to the fair value of the options granted:

- > including any market performance conditions;
- > excluding the impact of any service and non-market performance vesting conditions; and
- > including the impact of any non-vesting conditions.

Non-market performance and service conditions are included in assumptions about the number of options that are expected to vest. The total expense is recognised over the vesting period, which is the period over which all of the specified vesting conditions are to be satisfied. At the end of each reporting period the Group revises its estimate of the number of options that are expected to vest.

It recognises the impact of the revision of original estimates, if any, in profit or loss, with a corresponding adjustment to equity.

When options are exercised, the Company issues new shares. The proceeds received net of any directly attributable transaction costs are credited to share capital (nominal value) and share premium.

The fair value of goods or services received in exchange for shares is recognised as an expense.

2.15 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the Chief Executive Officer, the Company's chief operating decision-maker ("CODM").

2.16 Finance income

Interest income is recognised using the effective interest method, taking into account the principal amounts outstanding and the interest rates applicable.

2.17 Provisions and Contingent Liabilities

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and the amount can be reliably estimated.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to passage of time is recognised as finance cost.

Contingent liabilities are potential obligations that arise from past events and whose existence will only be confirmed by the occurrence of one or more uncertain future events that, however, are beyond the control of the Group. Furthermore, present obligations may constitute contingent liabilities if it is not probable that an outflow of resources will be required to settle the obligation, or a sufficiently reliable estimate of the amount of the obligation cannot be made.

The company has contingent consideration arising in respect of mineral asset acquisitions. Details are disclosed in note 4.2.

Restoration, Rehabilitation and Environmental Provisions

Management uses its judgement and experience to provide for and amortise the estimated mine closure and site rehabilitation over the life of the mine. Provisions are discounted at a risk-free rate and cost base inflated at an appropriate rate. The ultimate closure and site rehabilitation costs are uncertain and cost estimates can vary in response to many factors including changes to relevant legal requirements or the emergence of new restoration techniques. 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 could affect future financial results. Currently there is no provision as all restoration and rehabilitation for activities undertaken to date in line with the agreements for access to land. Once construction and mining operations commence however this is anticipated to become more significant.

Trade and other payables

Accounts payable and other short term monetary liabilities, are initially recognised at fair value, which equates to the transaction price, and subsequently carried at amortised cost using the effective interest method.

3 Financial risk management

The Group is exposed through its operations to the following financial risks:

- > Credit risk
- > Interest rate risk
- > Foreign exchange risk
- > Price risk, and
- > Liquidity risk.

In common with all other businesses, the Group is exposed to risks that arise from its use of financial instruments. This note describes the Group's objectives, policies and processes for managing those risks and the methods used to measure them. Further quantitative information in respect of these risks is presented throughout these financial statements. There have been no substantive changes in the Group's exposure to financial instrument risks, its objectives, policies and processes for managing those risks or the methods used to measure them from previous periods unless otherwise stated in this note.

(i) Principal financial instruments

The principal financial instruments used by the Group, from which financial instrument risk arises, are as follows:

- > Trade and other receivables
- > Cash and cash equivalents
- > Trade and other payables
- > Royalty finance
- > Derivative financial assets

3.1 Financial risk factors

The main financial risks to which the Group's activities are exposed are liquidity and fluctuations on foreign currency. The Group's overall risk management programme focusses 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 the Board of Directors under policies approved at the quarterly Board meetings. The Board frequently discusses principles for overall risk management including policies for specific areas such as foreign exchange.

(a) Liquidity risks

In keeping with similar sized mineral exploration groups, the Group's continued future operations depend on the ability to raise sufficient working capital through the issue of equity share capital. The Group monitors its cash and future funding requirements through the use of cash flow forecasts.

All cash, with the exception of that required for immediate working capital requirements, is held on short-term deposit.

(b) Foreign currency risks

The Group operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the Brazilian Real, US Dollar and the Pound Sterling.

Foreign exchange risk arises from future commercial transactions, recognised assets and liabilities and net investments in foreign operations that are denominated in a foreign currency. The Group holds a proportion of its cash in US Dollars and Brazilian Reals to hedge its exposure to foreign currency fluctuations and recognises the profits and losses resulting from currency fluctuations as and when they arise. The volume of transactions is not deemed sufficient to enter into forward contracts.

At 31 December 2019, if the Brazilian Real had weakened/strengthened by 20% against Pound Sterling with all other variables held constant, post tax loss for the year would have been approximately £102,936 lower/higher mainly as a result of foreign exchange losses/gains on translation of Brazilian Real expenditure and denominated bank balances. If the USD:GBP rate had increased by 5% the effect would be £799,698.

As of 31 December 2019 the Group's net exposure to foreign exchange risk was as follows:

	Functional Currency						Total 2019	Total 2018
	USD 2019	USD 2018	GBP 2019	GBP 2018	BRL 2019	BRL 2018		
Currency of net	£	£	£	£	£	£	£	£
Financial assets/liabilities								
GBP	—	—	—	—	—	—	—	—
USD	—	—	(10,822,512)	(4,928,732)	—	—	(10,822,512)	(4,928,732)
BRL	—	—	—	—	—	—	—	—
CAD	—	—	28,686	88,326	—	—	28,686	88,326
Total net exposure	—	—	(9,207,410)	505,478	—	—	(9,097,947)	1,274,435

(c) Interest rate risk

As the Group has no borrowings, it is not exposed to interest rate risk on financial liabilities. The Group's interest rate risk arises from its cash held on short-term deposit for which the Directors use a mixture of fixed and variable rate deposits. As a result, fluctuations in interest rates are not expected to have a significant impact on profit or loss or equity.

(d) Commodity price risk

The group is exposed to the price fluctuation of its primary product from the Araguaia project, being FerroNickel. The Group has a royalty over its Araguaia project which is denominated as a fixed percentage of the product over a certain number of tonnes produced. Given the Group is current in the development phase and is not yet producing any revenue, the costs of managing exposure to commodity price risk exceed any potential benefits. The Directors monitor this risk on an ongoing basis and will review this as the group moves towards production. The Groups exposure to nickel price amounted to the carrying value of the Royalty liability of £20,570,411 (2018: £nil). If the long term nickel price assumption used in the estimation were to increase or decrease by 10% then the effect on the carrying value of the liability would be an increase/decrease of £2,107,418 (2018: £nil).

(e) Credit risk

Credit risk arises from cash and cash equivalents and outstanding receivables. The Group maintains cash and short-term deposits with a variety of credit worthy financial institutions and considers the credit ratings of these institutions before investing in order to mitigate against the associated credit risk.

The Company's exposure to credit risk amounted to £73,189,301 (2018: £54,106,065). Of this amount £55,795,528 (2018: £48,618,726) is due from subsidiary companies, £17,393,773 represents cash holdings (2018: £5,487,339). See note 27 for adjustments for provisions for expected credit losses.

3.2 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 to enable the Group to continue its exploration and evaluation activities. The Group has no repayable debt at 31 December 2019 and defines capital based on the total equity of the Group. The Group monitors its level of cash resources available against future planned exploration and evaluation activities and may issue new shares in order to raise further funds from time to time.

As indicated above, the Group holds cash reserves on deposit at several banks and in different currencies until they are required and in order to match where possible with the corresponding liabilities in that currency.

3.3 Fair value estimation

The carrying values of trade receivables and payables are assumed to be approximate to their fair values, due to their short-term nature. The value of contingent consideration is estimated by discounting the future expected contractual cash flows at the Group's current cost of capital of 7% based on the interest rate available to the Group for a similar financial instrument.

During the year the Group entered into a royalty funding arrangement with Orion Mine Finance securing a gross upfront payment of \$25,000,000 before fees in exchange for a royalty over the first 426k tonnes of nickel produced from the Araguaia Ferronickel project. The agreement includes several prepayment options embedded within the agreement enabling the Group to reduce the royalty rate, these options are carried at fair value. Details of this agreement are included in note 18.

The future expected nickel price and, volatility of the nickel prices are key estimates that are critical in the fair value of the Buy Back Option associated with the Royalty financing.

The fair value of cash, other receivables, accounts payable and accrued liabilities and the joint venture obligation approximate their carrying values due to the short-term nature of the instruments.

Fair value measurements recognised in the statement of financial position subsequent to initial fair value recognition can be classified into Levels 1 to 3 based on the degree to which fair value is observable.

Level 1 – Fair value measurements are those derived from quoted prices in active markets for identical assets and liabilities.

Level 2 – Fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly, or indirectly.

Level 3 – Fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data.

Information relating to the basis of determination of the level 3 fair value for the buyback option and consideration of sensitivity to changes in estimates is disclosed in note 18b).

There were no transfers between any levels of the fair value hierarchy in the current or prior years.

4 Critical accounting estimates and judgements

The preparation of the Financial Statements in conformity with IFRSs requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the end of the reporting period and the reported amount of expenses during the year. Actual results may vary from the estimates used to produce these Financial Statements.

Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

Significant items subject to such judgements and estimates include, but are not limited to:

Estimates

Company – Application of the expected credit loss model prescribed by IFRS 9

IFRS 9 requires the Parent company to make assumptions when implementing the forward-looking expected credit loss model. This model is required to be used to assess the intercompany loan receivables from the company's Brazilian subsidiaries for impairment.

Arriving at the expected credit loss allowance involved considering different scenarios for the recovery of the intercompany loan receivables, the possible credit losses that could arise and the probabilities for these scenarios. The following was considered; the exploration project risk for Vermelho as well as the potential economics as derived from the PFS, positive NPV of the Araguaia projects as demonstrated by the Feasibility Study, ability to raise the finance to develop the projects, ability to sell the projects, market and technical risks relating to the project, participation of the subsidiaries in the Araguaia projects. See note 27 for a discussion on the adjustment passed concerning the impairment loss.

Valuation of derivative financial assets

Valuing derivatives inherently relies on a series of estimates and assumptions to derive what is deemed to be a fair value estimate for a financial instrument. The royalty financing arrangement entered into by the Group includes a Buyback option, an embedded derivatives which was valued using a Monte Carlo simulation method. This methodology of determining fair value is reliant upon estimations including the probability of certain scenarios occurring, the estimated production rate and timeline of production from the Araguaia project, future nickel prices as well as discount factors. The most important estimates in determining the valuation of the Buyback option are the future nickel price and its price volatility. The sensitivity of the valuation to these estimates are considered in note 18b).

Judgements

4.1 Impairment of exploration and evaluation costs

Exploration and evaluation costs which in 2019 relate solely to Vermelho have a carrying value at 31 December 2019 of £6,846,859 (2018: £35,511,145). Each exploration project is subject to an annual review by either a consultant or senior company geologist to determine if the exploration results returned to date warrant further exploration expenditure and have the potential to result in an economic discovery. This review takes into consideration long-term metal prices, anticipated resource volumes and grades, permitting and infrastructure. In the event that a project does not represent an economic exploration target and results indicate there is no additional upside, a decision will be made to discontinue exploration. The judgement exercised by management relates to whether there is perceived to be an indicator of impairment and that management have concluded that there is not, due to the recovery in the Nickel prices, favourable economics of the Pre-Feasibility Study as well as the fundamentals of the nickel market and expected supply gap in the mid-term.

4.2 Contingent consideration

Contingent consideration has a carrying value of £6,246,071, at 31 December 2019 (2018: £3,461,833). Deferred consideration has a carrying value of £nil at 31 December 2019 (2018: £1,360,792). There are two contingent consideration arrangements in place as at 31 December 2019:

Xstrata – Araguaia

- > A contingent consideration arrangement that requires the Group to pay Xstrata Brasil Mineração Ltda consideration after the date of issuance of a Feasibility Study ('FS') comprising the Araguaia project and the Vale dos Sonhos ('VdS') (US\$330,000) and Serra do Tapa ('SdT') (US\$670,000) project areas ('GAP') (together the 'Enlarged Project'), to be satisfied in shares in the Company (at the 5 day volume weighted average price taken on the tenth business day after the date of such issuance) or cash, at the election of the Company. The VdS project area was included in the FS published in October 2018 and this contingent consideration was satisfied by the issue of shares in the Company in January 2019, the SdT deposit is not currently included in the Araguaia project development plan as so no contingent consideration has been recognised in respect of the US\$670,000 that might become payable; and
- > Remaining contingent consideration of US\$5,000,000 to be paid in cash, as at the date of first commercial production from any of the resource areas within the Enlarged Project area. Given the recent publication of the Feasibility Study which includes an area purchased from Glencore and the securing of the royalty funding for the development of the project, this continues to be recognised as contingent consideration as it will become payable when the project enters commercial production. It is carried at £2,975,935, reflecting that it is discounted to reflect its current value. The carrying value has been adjusted to reflect that the date of commercial production has been reassessed in the year.

A key judgement in determining the estimated value of the contingent consideration for Glencore is the timing of the assumed date of first commercial production.

Vale – Vermelho

- > On 19 December 2017 the Company announced that it had reached agreement with Vale Metais Basicos S.A. ("Vale") to indirectly acquire through a wholly owned subsidiaries in Brazil, 100% of the advanced Vermelho nickel-cobalt project in Brazil ("Vermelho").
- > A final payment of US\$6,000,000 in cash is payable by Horizonte within 30 days of first commercial sale of product from Vermelho. Management have assessed that given the finalisation and publication of a pre-feasibility study on the Vermelho project during 2019, the project is likely to have progressed to a stage where this final payment can be considered probable and have therefore recognised this contingent consideration within liabilities for the first time during 2019. It is carried at £3,270,134, reflecting that it is discounted to reflect its current value.

Management have sensitized the fair value calculations for both contingent considerations to reasonable changes in the unobservable inputs and note that if the discount rate were to increase from 7% to 10% then the FV would decrease by £789,008 (2018: £221,263) to £5,457,061 (2018: £3,240,600).

The determination of the probability of the Vermelho project entering into commercial production is a judgement made by the Company based upon the demonstrated economics from the PFS published during 2019. The PFS identifies the ability of the Company to demonstrate economic viability of the project at the long-term consensus nickel pricing for a capital cost estimate that is considered achievable in the current market. It has therefore been concluded that with the project suitably advanced it is now probable that the project will advance towards production and the consideration become payable.

A key judgement in determining the estimated value of the deferred consideration for Vermelho is the timing of the assumed date of first commercial production. Management have undertaken a sensitivity and if the date of commercial production were to be delayed by 1 year then the fair value of deferred consideration for Vermelho would decrease by £213,933 and for Araguaia it would decrease by £195,202.

There has been no change in valuation technique during the period. Please refer to Note 17 for an analysis of the contingent and deferred consideration.

4.3 Current and deferred taxation

The Group is subject to income taxes in numerous jurisdictions. Judgment is required in determining the worldwide provision for such taxes. The Group recognises liabilities for anticipated tax issues based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will affect the current and deferred income tax assets and liabilities in the period in which such determination is made.

Deferred tax liabilities have been recognised on the fair value gains in exploration assets arising on the acquisitions of Araguaia Niquel Mineração Ltda (formerly Teck Cominco Brasil S.A) and Lontra Empreendimentos e Participações Ltda in 2010. A deferred tax asset in respect of the losses has been recognised on acquisition of Araguaia Niquel Mineração Ltda to the extent that it can be set against the deferred tax liability arising on the fair value gains. In determining whether a deferred tax asset in excess of this amount should be recognized management must make an assessment of the probability that the tax losses will be utilized and a deferred tax asset is only recognised if it is considered probable that the tax losses will be utilized.

Other estimates include but are not limited to future cash flows associated with assets, useful lives for depreciation and fair value of financial instruments.

4.4 Accounting for the royalty finance arrangements

The Group has a \$25m royalty funding arrangement which was secured in order to advance the Araguaia project towards construction. The treatment of this financing arrangements as a financial liability, calculated using the effective interest rate methodology is a key judgement that has been made by the Company and which has been taken following obtaining independent expert advice. The carrying value of the financing liability is also sensitive to assumptions regarding the royalty rate and future nickel prices. Further information relating to the accounting for this liability and the sensitivity of the carrying value to these estimates is provided in note 18a).

The future price of nickel and date of commencement of commercial production are key estimates that are critical in the determination of the carrying value of the royalty liability.

The future expected nickel price and, volatility of the nickel prices are key estimates that are critical in the fair value of the Buy Back Option associated with the Royalty financing.

5 Segmental reporting

The Group operates principally in the UK and Brazil, with operations managed on a project by project basis within each geographical area. Activities in the UK are mainly administrative in nature whilst the activities in Brazil relate to exploration and evaluation work. The newly established subsidiary responsible for the project finance for the Araguaia Project is domiciled in the Netherlands. The operations of this entity are reported separately and so it is recognised as a new segment. The reports used by the chief operating decision-maker are based on these geographical segments.

2019	UK 2019 £	Brazil 2019 £	Netherlands 2019 £	Total 2019 £
Intragroup sales	171,712	(171,712)	—	—
Administrative expenses	(1,840,348)	(723,532)	—	(2,563,880)
Profit/(loss) on foreign exchange	6,796	(78,839)	15,782	(56,261)
Loss from operations per reportable segment	(1,833,552)	(802,371)	15,782	(2,620,141)
Depreciation charges	—	—	—	—
Additions to non-current assets	—	3,595,775	—	3,595,775
Reportable segment assets	17,785,624	39,428,141	2,246,089	59,459,854
Reportable segment non-current assets	—	39,317,989	—	39,317,989
Reportable segment liabilities	6,572,952	569,434	20,925,405	28,067,791

2018	UK 2018 £	Brazil 2018 £	Total 2018 £
Revenue			
Intra-group sales	1,416,698	(1,416,698)	—
Administrative expenses	(1,336,093)	—	(1,336,093)
Loss on foreign exchange	186,209	(3)	186,206
Loss from operations per reportable segment	266,814	(1,416,701)	(1,149,887)
Depreciation charges	—	—	—
Additions to non-current assets	—	1,353,439	1,353,439
Reportable segment assets	5,627,373	36,663,073	42,290,446
Reportable segment non-current assets	—	35,739,088	35,739,088
Reportable segment liabilities	4,998,760	443,866	5,442,626

Inter segment revenues are calculated and recorded in accordance with the underlying intra group service agreements.

A reconciliation of adjusted loss from operations per reportable segment to loss before tax is provided as follows:

	2019 £	2018 £
Loss from operations per reportable segment	(2,620,141)	(1,149,885)
Changes in estimate for contingent and deferred consideration (refer note 17)	598,660	139,392
Charge for share options granted	(326,413)	(837,172)
Finance income	110,036	89,446
Finance costs	(933,351)	(181,442)
Loss for the year from continuing operations	(3,171,214)	(1,939,663)

6 Expenses by nature

Group	2019 £	2018 £
Charge for share options granted	326,413	837,172
Depreciation (note 11)	—	—

7 Auditor remuneration

During the year the Group (including its overseas subsidiaries) obtained the following services from the Company's auditor and its associates:

Group	2019 £	2018 £
Fees payable to the Company's auditor and its associates for the audit of the parent company and consolidated financial statements	58,200	38,000
Fees payable to the Company's auditor and its associates for other services:		
– Audit related assurance services	—	—
– Tax compliance services	48,563	4,850

8 Finance income and costs

Group	2019 £	2018 £
Finance income:		
– Interest income on cash and short-term bank deposits	110,036	89,446
Finance costs:		
– Contingent and deferred consideration: unwinding of discount	(344,953)	(181,442)
– Amortisation of Royalty financing	(572,294)	—
– Fair Value adjustment on royalty	(91,476)	—
– movement in fair value of derivative asset	75,372	—
Total finance costs	(933,351)	(181,442)
Net finance costs	(823,315)	(91,996)

9 Income Tax

Group	2019 £	2018 £
Tax charge:		
Current tax charge for the year	—	—
Deferred tax charge for the year	—	—
Tax on loss for the year	—	—

Reconciliation of current tax

Group	2019 £	2018 £
Loss before income tax	(3,171,214)	(1,939,663)
Current tax at 19% (2018: 19.25%)	(602,530)	(368,536)
Effects of:		
Expenses not deducted for tax purposes	281,391	174,095
Utilisation of tax losses brought forward	—	—
Tax losses carried forward for which no deferred income tax asset was recognised	473,130	194,441
Effect of higher overseas tax rates	(88,990)	—
Total tax	—	—

No tax charge or credit arises on the loss for the year.

The corporation tax rate in Brazil is 34%, the Netherlands 21% and the United Kingdom 19%. The group incurred expenses in all of these jurisdictions during the year, in 2018 the effective rate was 19.25% as all of the losses arose in the UK.

Deferred income tax

An analysis of deferred tax assets and liabilities is set out below.

Group	2019 £	2018 £
Deferred tax assets	1,412,509	1,522,700
Deferred tax liabilities		
– Deferred tax liability to be settled after more than 12 months	1,624,891	(1,751,391)
Deferred tax liabilities (net)	(212,382)	(228,691)

The movement on the net deferred tax liabilities is as follows:

Group	2019 £	2018 £
At 1 January	(228,691)	(253,205)
Exchange differences	16,309	24,514
At 31 December	(212,382)	(228,691)

Deferred tax assets are recognised on tax losses carried forward to the extent that the realisation of the related tax benefit through future taxable profits is probable.

Deferred tax liabilities are recognised in respect of fair value adjustments to the carrying value of intangible assets as a result of the acquisition of such assets.

The Group has tax losses of approximately £16,810,975 (2018: £22,778,401) in Brazil and excess management charges of approximately £nil (2018: £834,644) in the UK available to carry forward against future taxable profits. Deferred tax assets have been recognised up to the amount of the deferred tax liability arising on the fair value adjustments. Potential deferred tax assets of £5,715,731 (2018: £6,221,957) have not been recognised.

Tax losses are available indefinitely.

10 Intangible assets

Intangible assets comprise exploration licenses, exploration and evaluation costs and goodwill. Exploration and evaluation costs comprise acquired and internally generated assets.

Group	Goodwill £	Exploration Licenses £	Exploration and evaluation costs £	Total £
Cost				
At 1 January 2018	251,063	5,165,529	28,891,686	34,308,278
Additions	—	1,245,111	3,236,829	4,481,940
Exchange rate movements	(24,306)	(280,344)	(2,747,666)	(3,052,316)
Net book amount at 31 December 2018	226,757	6,130,296	29,380,849	35,737,903
Transfer to PPE	—	(3,483,363)	(29,808,123)	(33,291,486)
Additions	—	3,324,005	2,604,911	5,928,916
Exchange rate movements	(16,172)	(813,572)	(488,143)	(1,317,887)
Net book amount at 31 December 2019	210,585	5,157,366	1,689,495	7,057,444

In December 2018, the Group published a technical Feasibility Study for the Araguaia Ferronickel project in accordance with NI 43-101. Under IFRS 6 — Exploration for and Evaluation of Mineral Resources, an impairment test is required when the technical feasibility and commercial viability of extracting a mineral resource become demonstrable, at which point the asset falls outside the scope of IFRS 6 and has been reclassified in the Financial Statements to mine development project upon completion of the royalty financing, which is deemed to be the date at which commercial viability had been determined. The Feasibility Study financial assessment performed by independent mining specialists, Ausenco, gave a post-tax discounted cash flow valuation of US\$401M at 8% discount factor based on a longterm Nickel price of US\$14,000/t Ni. Thus, there is no impairment for these mining assets as the combined value of the exploration & evaluation assets only totaled £34,244,817, giving significant headroom. As a result, these costs were transferred to evaluated mining property, as part of PPE as at the date of financial close of the royalty agreement.

(a) Exploration and evaluation assets

The exploration and evaluation costs are split between Araguaia and Vermelho as follows:

	Exploration licences £	Exploration and evaluation costs £	Total £
Araguaia	4,863,968	29,380,849	34,244,817
Vermelho	1,266,328	—	1,266,328
Net book amount at 31 December 2018	6,130,296	29,380,849	35,737,903
Vermelho	5,157,366	1,689,495	6,846,860
Net book amount at 31 December 2019	5,157,366	1,689,495	6,846,860

No indicators of impairment were identified during the year for the Vermelho project.

Vermelho

In January 2018, the acquisition of the Vermelho project was completed, which resulted in a deferred consideration of \$1,850,000 being recognised and accordingly an amount of £1,245,111 was capitalised to the exploration licences held within intangible assets shown above.

On 17 October the Group published the results of a Pre-Feasibility Study on the Vermelho Nickel Cobalt Project, which confirms Vermelho as a large, high-grade resource, with a long mine life and low-cost source of nickel sulphate for the battery industry.

The economic and technical results from the study support further development of the project towards a full Feasibility Study and included the following:

- > A 38-year mine life estimated to generate total cash flows after taxation of US\$7.3 billion;
- > An estimated Base Case post-tax Net Present Value¹ ('NPV') of US\$1.7 billion and Internal Rate of Return ('IRR') of 26%;
- > At full production capacity the Project is expected to produce an average of 25,000 tonnes of nickel and 1,250 tonnes of cobalt per annum utilising the High-Pressure Acid Leach process;
- > The base case PFS economics assume a flat nickel price of US\$16,400 per tonne ('/t') for the 38-year mine life;
- > C1 (Brook Hunt) cash cost of US\$8,020/t Ni (US\$3.64/lb Ni), defines Vermelho as a low-cost producer; and
- > Initial Capital Cost estimate is US\$652 million (AACE class 4).

It has been therefore concluded there are no indicators of impairment.

(b) Goodwill

Goodwill arose on the acquisition of Lontra Empreendimentos e Participações Ltda in 2010. The Directors have determined the recoverable amount of goodwill based on the same assumptions used for the assessment of the Lontra exploration project detailed above. As a result of this assessment, the Directors have concluded that no impairment charge is necessary against the carrying value of goodwill.

11 Property, plant and equipment

Group	Mine Development Property £	Vehicles and other field equipment £	Office equipment £	Total £
Cost				
At 1 January 2017	—	106,304	14,398	120,702
Foreign exchange movements	—	(10,630)	(796)	(11,426)
Additions	—	2,236	—	2,236
At 31 December 2017	—	97,910	13,602	111,512
Foreign exchange movements	—	8,812	822	9,634
Additions	—	—	—	—
At 31 December 2018	—	106,722	14,424	121,146
Foreign exchange movements	(1,270,125)	—	—	(1,270,125)
Transfer from exploration and evaluation assets ¹	33,291,486	—	—	33,291,486
Additions	238,701	—	—	238,701
At 31 December 2019	32,260,061	—	—	32,260,061
Accumulated depreciation				
At 1 January 2018	—	95,859	13,602	109,461
Charge for the year	—	436	—	436
Foreign exchange movements	—	9,241	822	10,063
At 31 December 2018	—	105,536	14,424	119,960
Charge for the year	—	703	—	703
Foreign exchange movements	—	—	—	—
At 31 December 2019	—	106,239	14,424	120,663
Net book amount as at 31 December 2019	32,260,061	483	—	32,260,544
Net book amount as at 31 December 2018	—	1,186	—	1,186
Net book amount as at 1 January 2018	—	2,051	—	2,051

¹ Following determination of the technical feasibility and commercial viability of the Araguaia Ferronickel Project, the relevant expenditure has been transferred from exploration and evaluation assets to evaluated mineral property

Depreciation charges of £703 (2018: £436) have been capitalised and included within intangible exploration and evaluation asset additions for the year. The remaining depreciation expense for the year ended 31 December 2019 of £nil (2018: £nil) has been charged in 'administrative expenses' under 'Depreciation.'

Company	Field equipment £	Office equipment £	Total £
Cost			
At 1 January 2018	4,208	7,403	11,611
Additions	—	—	—
At 31 December 2018 and 2019	4,208	7,403	11,611
Accumulated depreciation			
At 1 January 2018	4,208	7,403	11,611
Charge for the year	—	—	—
At 31 December 2018	4,208	7,403	11,611
Charge for the year	—	—	—
At 31 December 2019	4,208	7,403	11,611
Net book amount as at 31 December 2019	—	—	—
Net book amount as at 31 December 2018	—	—	—
Net book amount as at 1 January 2018	—	283	283

In December 2018, a Canadian NI 43-101 compliant Feasibility Study ("FS") was published by the Company regarding the enlarged Araguaia Project which included the Vale dos Sonhos deposit acquired from Glencore.

The financial results and conclusions of the FS clearly indicate the economic viability of the Araguaia Project with an NPV of \$401M using a nickel price of \$14,000/t Ni. Nothing material had changed with the economics of the FS between the publication date and the date of this report and the Directors undertook an assessment of impairment through evaluating the results of the FS along with recent market information relating to capital markets and nickel prices and judged that there are no impairment indicators with regards to the Araguaia Project.

Impairment assessments for exploration and evaluation assets are carried out either on a project by project basis or by geographical area.

The adjacent Araguaia/Lontra/Vila Oito and Floresta exploration sites ('the Araguaia Project'), together with the Vale dos Sonhos deposit acquired from Xstrata Brasil Mineração Ltda comprise a resource of a sufficient size and scale to allow the Company to create a significant single nickel project. For this reason, at the current stage of development, these two projects are viewed and assessed for impairment by management as a single cash generating unit.

The mineral concession for the Vale dos Sonhos deposit was acquired from Xstrata Brasil Mineração Ltda, a subsidiary of Glencore Canada Corporation, in November 2015.

The NPV has been determined by reference to the FS undertaken during the year on the Araguaia Project. The key inputs and assumptions in deriving the value in use were, the discount rate of 8%, which is based upon an estimate of the risk adjusted cost of capital for the jurisdiction, capital costs of \$443 million, operating costs of \$8,194/t Nickel, a Nickel price of US\$14,000/t and a life of mine of 28 years.

Sensitivity to changes in assumptions

For the base case NPV₉ of the Araguaia Project of US\$401 million using a nickel price of US\$14,000/t and US\$740 million using US\$16,800/t as per the FS to be reduced to the book value of the Araguaia Project as at 31 December 2019, the discount rate applied to the cash flow model would need to be increased from 8% to 17%.

12 Cash and cash equivalents

	Group		Company	
	2019 £	2018 £	2019 £	2018 £
Cash at bank and on hand	2,219,850	422,501	1,854,329	194,149
Short-term deposits	15,540,480	6,104,614	15,540,480	5,293,190
	17,760,330	6,527,115	17,394,809	5,487,339

The Group's cash at bank and short-term deposits are held with institutions with the following credit ratings (Fitch):

	Group		Company	
	2019 £	2018 £	2019 £	2018 £
A	17,338,016	5,551,299	17,338,016	5,431,914
BBB-	422,314	975,816	56,793	55,425
	17,760,330	6,527,115	17,394,809	5,487,339

The cash deposited with the institution with a BBB rating is only held short term and the expected credit loss is not assessed as material.

13 Share capital

Group and Company	2019 Number	2019 £	2018 Number	2018 £
Issued and fully paid				
Ordinary shares of 1p each				
At 1 January	1,432,521,800	14,325,218	1,371,934,300	13,719,343
Issue of ordinary shares	13,855,487	138,555	60,587,500	605,875
At 31 December	1,446,377,287	14,463,773	1,432,521,800	14,325,218

Share capital comprises amount subscribed for shares at the nominal value.

2019

On 24 January 2019 the Company issued 13,855,487 as settlement for \$330,000 of deferred contingent consideration that became payable following the issuance of a Feasibility Study including the Vale dos Sonhos deposit originally acquired from Glencore.

2018

On 11 January 2018, the Company issued 60,587,500 new ordinary shares through a private placement in Canada at a price of C\$0.06 per share raising gross cash proceeds of CAD\$3,635,250 before expenses.

14 Share premium

Group and Company	2019 £	2018 £
At 1 January	41,664,018	40,422,258
Premium arising on issue of ordinary shares	121,288	1,451,723
Issue costs	—	(209,964)
At 31 December	41,785,306	41,664,018

Share premium comprises the amount subscribed for share capital in excess of nominal value.

15 Share-based payments

The Directors have discretion to grant options to the Group employees to subscribe for Ordinary shares up to a maximum of 10% of the Company's issued share capital. One third of options are exercisable at each six months anniversary from the date of grant, such that all options are exercisable 18 months after the date of grant and all lapse on the tenth anniversary of the date of grant or the holder ceasing to be an employee of the Group. Should holders cease employment then the options remain valid for a period of 3 months after cessation of employment, following which they will lapse. Neither the Company nor the Group has any legal or constructive obligation to settle or repurchase the options in cash.

Movements on number of share options and their related exercise price are as follows:

	Number of options 2019 £	Weighted average exercise price 2019 £	Number of options 2018 £	Weighted average exercise price 2018 £
Outstanding at 1 January	134,300,000	0.056	94,650,000	0.059
Forfeited	—	—	—	—
Granted	2,000,000	0.048	39,650,000	0.048
Outstanding at 31 December	136,300,000	0.055	134,300,000	0.056
Exercisable at 31 December	134,966,667	0.055	109,026,667	0.058

The options outstanding at 31 December 2019 had a weighted average remaining contractual life of 6.38 years (2018: 7.37 years).

The fair value of the share options was determined using the Black-Scholes valuation model.

The parameters used are detailed below.

Group and Company	2019 options	2018 options
Date of grant	11/02/2019	30/05/2018
Weighted average share price	2.29 pence	4.30 pence
Weighted average exercise price	4.80 pence	4.80 pence
Weighted average fair value at the measurement date	1.05 pence	2.51 pence
Expiry date	11/2/2029	30/5/2028
Options granted	2,000,000	39,650,000
Volatility	51%	51%
Dividend yield	Nil	Nil
Option life	10 years	10 years
Annual risk free interest rate	1.22%	1.22%

The expected volatility is based on historical volatility for the six months prior to the date of grant. The risk free rate of return is based on zero yield government bonds for a term consistent with the option life.

The range of option exercise prices is as follows:

Range of exercise prices (£)	2019 Weighted average exercise price (£)	2019 Number of shares	2019 Weighted average remaining life expected (years)	2019 Weighted average remaining life contracted (years)	2018 Weighted average exercise price (£)	2018 Number of shares	2018 Weighted average remaining life expected (years)	2018 Weighted average remaining life contracted (years)
0–0.1	0.04	121,150,000	7.02	7.02	0.04	119,150,000	8.02	8.02
0.1–0.2	0.16	15,150,000	1.55	1.55	0.16	15,150,000	2.55	2.55

16 Other reserves

Group	Merger reserve £	Translation reserve £	Other reserve £	Total £
At 1 January 2018	10,888,760	(8,852,646)	(1,048,100)	998,014
Other comprehensive income	—	—	—	—
Currency translation differences	—	(3,028,006)	—	(3,208,006)
At 31 December 2018	10,888,760	(11,880,652)	(1,048,100)	(2,039,991)
Other comprehensive income	—	—	—	—
Currency translation differences	—	(2,626,938)	—	(2,626,938)
At 31 December 2019	10,888,760	(14,507,590)	(1,048,100)	(4,666,930)

Company	Merger reserve £	Total £
At 1 January 2018 and 31 December 2018	10,888,760	10,888,760
At 1 January 2019 and 31 December 2019	10,888,760	10,888,760

The merger and other reserve as at 31 December 2019 arose on consolidation as a result of merger accounting for the acquisition of the entire issued share capital of Horizonte Exploration Limited during 2006 and represents the difference between the value of the share capital and premium issued for the acquisition and that of the acquired share capital and premium of Horizonte Exploration Limited.

Currency translation differences relate to the translation of Group entities that have a functional currency different from the presentation currency (refer note 2.8). Movements in the translation reserve are linked to the changes in the value of the Brazilian Real against the Pound Sterling: the intangible assets of the Group are located in Brazil, and their functional currency is the Brazilian Real, which decreased in value against Sterling during the year.

17 Trade and other payables

	Group		Company	
	2019 £	2018 £	2019 £	2018 £
Non-current				
Contingent consideration payable to Xstrata Brasil Mineração Ltda (refer note 26)	2,975,935	3,461,833	2,975,935	3,461,833
Vale Metais Basicoc S.A. (refer note 17)	3,270,134	—	3,270,134	—
Total contingent consideration	6,246,069	3,461,833	6,246,069	3,461,833
Current				
Deferred consideration payable to former owners of Vermelho.	—	1,360,792	—	1,360,792
Trade and other payables	538,933	215,175	176,588	6,201
Amounts due to related parties (refer note 17)	—	—	413,930	413,930
Social security and other taxes	30,000	20,000	30,000	20,000
Accrued expenses	115,000	45,000	115,000	45,000
	683,933	1,640,967	735,518	1,845,923
Total trade and other payables	6,930,002	5,102,800	6,981,587	5,307,756

Trade and other payables include amounts due of £317,816 (2018: £111,815) in relation to exploration and evaluation activities. Contingent and deferred consideration also relate to exploration and evaluation activities.

Contingent Consideration payable to Xstrata Brasil Mineração Ltda

On 28 September 2015 the Company announced that it had reached agreement to indirectly acquire through wholly owned subsidiaries in Brazil the advanced high-grade Glencore Araguaia nickel project ('GAP') in north central Brazil. GAP is located in the vicinity of the Company's Araguaia Project.

Pursuant to a conditional asset purchase agreement ('Asset Purchase Agreement') between, amongst others, the Company and Xstrata Brasil Exploração Mineral Ltda ('Xstrata'), a wholly-owned subsidiary of Glencore Canada Corporation ('Glencore'), the Company has agreed to pay a total consideration of US\$8 million to Xstrata, which holds the title to GAP. The consideration is to be paid according to the following schedule;

- > US\$2,000,000 in ordinary shares in the capital of the Company which was settled by way of issuing new shares in the Company as follows: US\$660,000 was paid in shares to a subsidiary of Glencore during 2015 and the transfer of the Serra do Tapa and Pau Preto deposit areas (together: 'SdT') during 2016 initiated the final completion of the transaction with a further US\$1,340,000 shares in the Company issued.
- > US\$1,000,000 after the date of issuance of a joint Feasibility Study for the combined Araguaia & GAP project areas, to be satisfied in HZM Shares (at the 5 day volume weighted average price taken on the tenth business day after the date of such issuance) or cash, at the election of the Company. Of this \$330,000 is due upon the inclusion of Vale dos Sonhos in a Feasibility Study and \$670,000 for Serra do Tapa, as at 31 December a Feasibility Study including Vale dos Sonhos has been published and the consideration settled by way of issuing 13,855,487 new Shares in the Company. Serra do Tapa is not included in the current project plans, therefore management have concluded it's not currently probable that the consideration for Serra do Tapa will be paid. This consideration is therefore not included in contingent consideration; and
- > The remaining US\$5,000,000 consideration will be paid in cash, as at the date of first commercial production from any of the resource areas within the Enlarged Project area. Following transfer of the concession for the VdS deposit area to a subsidiary of the Company, this has been included in contingent consideration payable.

Deferred consideration payable to Vale S.A

- > On 19 December 2017 the Company announced that it had reached agreement with Vale S.A ("Vale") to indirectly acquire through wholly owned subsidiaries in Brazil, 100% of the advanced Vermelho nickel-cobalt project in Brazil ("Vermelho").
- > The terms of the Acquisition required Horizonte to pay an initial cash payment of US\$150,000 with a further US\$1,850,000 in cash payable on the second anniversary of the signing of the asset purchase agreement. This was paid by the Group in December 2019 and is no longer included in deferred consideration.
- > A final payment of US\$6,000,000 in cash is payable by Horizonte within 30 days of first commercial sale of product from Vermelho. Management have assessed that with the publication of the Pre-Feasibility Study during 2019 for the Vermelho project, there is a reasonable probability that the project will advance through to production and therefore have recognised this contingent consideration within liabilities for the first time during the year.

The critical assumptions underlying the treatment of the contingent consideration are set out in note 4.2.

As at 31 December 2019, there was a finance expense of £344,952 (2018: £181,441) recognised in finance costs within the Statement of Comprehensive Income in respect of the contingent and deferred consideration arrangements, as the discount applied to the consideration at the date of acquisition was unwound.

	Contingent consideration £	Deferred consideration £	Total £
At 1 January 2018	3,635,955	—	3,635,955
Initial recognition - Vale	—	1,144,621	1,144,621
Unwinding of discount	94,625	86,816	181,441
Change in estimate	(268,747)	129,355	139,391
31 December 2018	3,461,833	1,360,792	4,822,626
Initial recognition - Vale	3,324,004	—	3,324,004
Unwinding of discount	253,439	91,513	344,952
Change in estimate	(534,201)	(64,459)	(598,660)
Settlement of consideration	(259,006)	(1,387,846)	(1,646,852)
At 31 December 2019	6,246,069	—	6,246,069

18 a) Royalty financing liability

On 29 August 2019 the Group entered into a royalty funding arrangement with Orion Mine Finance ("OMF") securing a gross upfront payment of \$25,000,000 before fees in exchange for a royalty, the rate being in a range from 2.25% to 3.00% and determined by the date of funding and commencement of major construction. At inception of the loan and at the year end the rate has been estimated at 2.45%. The royalty is paid over the first 426k tonnes of nickel produced from the Araguaia Ferronickel project. The Royalty agreement has certain provisions to increase the headline royalty rate should there be delays in securing project financing beyond a pre agreed timeframe. The royalty is linked to production and therefore does not become payable until the project is constructed and commences commercial production. The agreement contains certain embedded derivatives which as per IFRS9 have been separately valued and included in the fair value of the financial instrument in note 18 b).

The Royalty liability has initially been recognised using the amortised cost basis using the effective interest rate of 14.5%. When circumstances arise that lead to payments due under the agreement being revised, the group adjusts the carrying amount of the financial liability to reflect the revised estimated cash flows. This is achieved by recalculating the present value of estimated cash flows using the original effective interest rate of 14.5%. any adjustment to the carrying value is recognised in the income statement.

	2019 £
Initial recognition of Royalty	19,379,845
Fees	(1,138,640)
Fair value of embedded derivative on initial recognition	2,232,558
Unwinding of discount	572,294
Change in fair value	91,476
Effects of foreign exchange	(567,122)
Value as at 31 December 2019	20,570,411

Management have sensitised the carrying value of the royalty liability by a change in the royalty rate of 0.1% and it would be £840,081 higher/lower and for a \$1,000/t Ni increase/decrease in future nickel price the carrying value would change by £1,301,840.

b) Derivative financial asset

The aforementioned agreement includes several options embedded within the agreement as follows:

- > If there is a change of control of the Group and the start of major construction works (as defined by the expenditure of in excess of \$30m above the expenditure envisaged by the royalty funding) is delayed beyond a certain pre agreed timeframe the following options exist:
 - Call Option – which grants Horizonte the option to buy back between 50 – 100% of the royalty at a valuation that meets certain minimum economic returns for OMF;
 - Make Whole Option – which grants Horizonte the option to make payment as if the project had started commercial production and the royalty payment were due; and
 - Put Option – should Horizonte not elect for either of the above options, this put option grants OMF the right to sell between 50 – 100% of the Royalty back to Horizonte at a valuation that meets certain minimum economic returns for OMF.
- > Buy Back Option - At any time from the date of commercial production, provided that neither the Call Option, Make Whole Option or the Put Option have been actioned, Horizonte has the right to buy back up to 50% of the Royalty at a valuation that meets certain minimum economic returns for OMF.

The directors have undertaken a review of the fair value of all of the embedded derivatives and are of the opinion that the Call Option, Make Whole Option and Put Option currently have immaterial values as the probability of both a change of control and project delay are currently considered to be remote. There is considered to be a higher probability that the Group could in the future exercise the Buy Back Option and therefore has undertaken a fair value exercise on this option.

The initial recognition of the Buy Back Option has been recognised as an asset on the balance sheet with any changes to the fair value of the derivative recognised in the income statement. It been fair valued using a Monte Carlo simulation which runs a high number of scenarios in order to derive an estimated valuation.

The assumptions for the valuation of the Buy Back Option are the future nickel price (\$16,188/t Ni), the start date of commercial production (2022), the prevailing royalty rate (2.45%), the inflation rate (1%) and volatility of nickel prices (23.6%).

	2019 £
Initial recognition of derivative	2,232,558
Change in fair value	75,372
Effects of foreign exchange	(61,121)
Value as at 31 December 2019	2,246,809

Sensitivity analysis

The valuation of the Buyback option is most sensitive to estimates for nickel price and nickel price volatility.

An increase in the estimated future nickel price by \$1,000 would give rise to a \$1,190,000 increase in the value of the option.

The nickel price volatilities based on both 5 and 10 year historic prices are in close proximity and this is the period in which management consider that the option would be exercised. Therefore, management have concluded that currently no reasonably possible alternative assumption for this estimate would give rise to a material impact on the valuation.

19 Note to statement of cash flows

Below is a reconciliation of borrowings from financial transactions:

	Royalty Financing £	Derivative asset £	Total £
As at 1 January 2019	—	—	—
Cashflows			
Gross proceeds	19,379,845	—	19,379,845
Fees	(1,138,640)	—	(1,138,640)
Non cash flows:			
Fair value of embedded derivative on initial recognition	2,232,558	(2,232,558)	—
Unwinding of discount	572,294	—	572,294
Change in fair value	91,476	(75,372)	16,103
Effects of foreign exchange	(567,411)	61,121	(567,411)
Total non-current borrowings	20,570,411	(2,246,809)	18,323,602

20 Dividends

No dividend has been declared or paid by the Company during the year ended 31 December 2019 (2018: nil).

21 Earnings per share**(a) Basic**

The basic loss per share of 0.219p loss per share (2018 loss per share: 0.136p) is calculated by dividing the loss attributable to owners of the parent by the weighted average number of ordinary shares in issue during the year.

Group	2019 £	2018 £
Loss attributable to owners of the parent	(3,171,214)	(1,939,662)
Weighted average number of ordinary shares in issue	1,445,504,202	1,431,027,862

(b) Diluted

The basic and diluted loss per share for the years ended 31 December 2019 and 31 December 2018 are the same as the effect of the exercise of share options would be anti-dilutive.

In January 2019 the Group issued a further 13,855,487 new ordinary shares at a price of 1.875 pence per share in settlement for deferred contingent consideration due to Glencore, had this occurred prior to the end of the year this would have impacted the basic and diluted earnings per share figures.

Details of share options that could potentially dilute earnings per share in future periods are set out in note 15.

22 Related party transactions

The following transactions took place with subsidiaries in the year:

A fee totalling £474,782 (2018: £399,762 was charged to HM do Brazil Ltda, £1,950,790 (2018: £961,042) to Araguaia Niquel Mineração Ltda and £120,197 (2018: £55,894) to Typhon Brasil Mineração Ltda by Horizonte Minerals Plc in respect of consultancy services provided and funding costs.

Amounts totalling £2,545,769 (2018: £1,416,698) were lent to HM Brazil (IOM) Ltd, HM do Brasil Ltda, Araguaia Niquel Mineração Ltda and Typhon Brasil Mineração Ltda to finance exploration work during 2019, by Horizonte Minerals Plc. Interest is charged at an annual rate of 6% on balances outstanding during the year. The amounts are repayable on demand.

See note 27 for balances with subsidiaries at the year end.

All Group transactions were eliminated on consolidation.

23 Ultimate controlling party

The Directors believe there to be no ultimate controlling party.

24 Directors' remuneration (including Key Management)

Group 2019	Short term benefits Aggregate emoluments £	Other emoluments £	Post employment benefits Pension costs £	Total £	Cost to Company Social Security costs £	Non-Cash Share Based Payment Charge £	Grand Total £
Non-Executive Directors							
Alexander Christopher	—	—	—	—	—	—	—
David Hall	30,234	32,500 ¹	—	62,824	2,981	34,224	100,029
William Fisher	26,400	32,500 ¹	—	58,900	—	29,946	88,846
Allan Walker	30,359	32,500 ¹	—	62,859	7,483	29,946	100,288
Owen Bavinton	31,043	—	39,396	70,439	1,696	29,946	102,081
Executive Directors							
Jeremy Martin	231,130	200,000 ¹	16,662	447,792	51,405	68,448	567,645
Key Management							
Simon Retter	155,640	94,164 ²	12,000	261,804	20,295	34,224	316,323
	504,896	391,664	68,058	964,618	83,860	226,735	1,275,212

¹ Denotes bonuses paid regarding a long term incentive plan related to the successful publication of a Feasibility Study for Araguaia, Pre-Feasibility Study for Vermelho and closure of \$25m royalty funding arrangement with OMF.

² Includes £65,000 bonus paid regarding a long term incentive plan related to the successful publication of a Feasibility Study for Araguaia, Pre-Feasibility Study for Vermelho and closure of \$25m royalty funding arrangement with OMF.

Group 2018	Short term benefits Aggregate emoluments £	Other emoluments £	Post employment benefits Pension costs £	Total £	Cost to Company Social Security costs £	Non-Cash Share Based Payment Charge £	Grand Total £
Non-Executive Directors							
Alexander Christopher	—	—	—	—	—	—	—
David Hall	26,400	32,500 ¹	—	58,900	2,415	93,323	154,138
William Fisher	26,400	32,500 ¹	—	58,900	—	80,261	154,138
Allan Walker	26,400	34,500 ¹	—	60,900	7,242	80,261	148,403
Owen Bavinton	—	—	79,848	79,848	—	80,261	160,109
Executive Directors							
Jeremy Martin	216,157	150,000 ¹	21,186	387,343	49,367	167,415	604,125
Key Management							
Simon Retter	92,362	73,320 ²	23,380	189,062	15,713	80,749	285,524
	387,719	322,820	124,414	831,953	74,737	582,270	1,507,437

¹ Denotes bonuses paid to senior staff regarding a long term incentive plan upon publication of a bankable feasibility study on the Araguaia FeNi project.

² Includes £30,000 bonus paid to Mr Retter regarding the successful completion of the feasibility study on the Araguaia FeNi project.

³ The Group has in place a long term incentive plan with certain key members of management, including the CEO, CFO and certain Non-Executive Directors. Awards are due to be made following the successful completion of milestones deemed to be significant for the long term value creation of the Group including completion of project financing, commencement of commercial production and in the event there is an offer for the asset or for the entire issued share capital of the Group.

There are no other long term or termination benefits granted to key management.

The Company does not operate a pension scheme. Pension costs comprise contributions to Defined Contribution pension plans held by the relevant Director or Key Management.

25 Employee benefit expense (including Directors and Key Management)

Group	Group 2019 £	2018 £	Company 2019 £	2018 £
Wages and salaries	1,856,864	1,450,771	1,220,693	856,288
Social security costs	254,503	244,590	125,626	105,337
Indemnity for loss of office	16,865	10,472	—	—
Share options granted to Directors and employees (note 15)	326,413	873,757	326,413	873,757
	2,454,644	2,579,590	1,672,732	1,835,382
Management	10	11	8	6
Field staff	18	16	—	—
Average number of employees including Directors and Key Management	28	27	8	6

Employee benefit expenses includes £892,500 (2018: £685,477) of costs capitalised and included within intangible non-current assets.

Share options granted include costs of £192,511 (2018: £501,523) relating to Directors.

26 Investments in subsidiaries

Company	2019 £	2018 £
Shares in Group undertakings	2,348,042	2,348,042
	2,348,042	2,348,042

Investments in Group undertakings are stated at cost.

On 23 March 2006 the Company acquired the entire issued share capital of Horizonte Exploration Limited by means of a share for share exchange; the consideration for the acquisition was 21,841,000 ordinary shares of 1 penny each, issued at a premium of 9 pence per share. The difference between the total consideration and the assets acquired has been credited to other reserves.

27 Loans to subsidiaries

Balances with subsidiaries at the year end were:

Company	2019 Assets £	2018 Assets £
HM do Brasil Ltda	944,928	883,909
HM Brazil (IOM) Ltd	3,149,326	3,021,172
Horizonte Nickel (IOM) Ltd	35,641,959	33,145,934
Araguaia Niquel Mineração Ltda	10,244,039	9,747,741
Horizonte Minerals (IOM) Ltd	253,004	253,004
Typhon Brasil Mineração Ltda	4,378,487	1,625,087
Trias Brasil Mineração Ltda	801,403	801,403
Total	55,413,147	49,478,251

The loans to Group undertakings are repayable on demand and currently carry no interest, however there is currently no expectation of repayment within the next twelve months and therefore loans are treated as non-current.

Company	1 January 2018 £	Amounts advanced during year £	Expected credit loss for balances at 1 January 2018 £	Expected credit loss for balances advanced in 2018 £	2018 £	Amounts advanced during year £	Expected credit loss £	2019 £
HM do Brasil Ltda	1,263,644	504,174	(631,822)	(252,087)	883,909	122,038	(61,019)	944,928
HM Brazil (IOM) Ltd	5,405,662	636,683	(2,702,831)	(318,342)	3,021,172	256,307	(128,154)	3,149,326
Horizonte Nickel (IOM) Ltd	31,136,784	2,009,153	—	—	33,145,934	2,496,025	—	35,641,959
Araguaia Niquel Mineração Ltda	6,594,120	3,153,621	—	—	9,747,741	496,298	—	10,244,039
Horizonte Minerals (IOM) Ltd	253,004	—	—	—	253,004	—	—	253,004
Typhon Brasil Mineração Ltda	3,224,179	25,994	(1,612,090)	(12,998)	1,625,087	3,004,807	(251,407)	4,378,487
Trias Brasil Mineração Ltda	1,012,620	—	—	(1,012,620)	—	—	—	—
Champol (IOM) Ltd	—	240	—	(240)	—	—	—	—
Cluny (IOM) Ltd	—	1,144,861	—	(343,458)	801,403	—	—	801,403
Total	48,890,013	7,474,726	(4,946,743)	(1,939,745)	49,478,251	6,375,388	(440,579)	55,413,147

The Group uses a forward-looking expected credit loss model approach in accordance with IFRS 9 which requires the parent to make an allowance for lifetime expected credit losses.

The loan to the subsidiary companies, are classified as repayable on demand. IFRS 9 requires consideration of the expected credit risk associated with the loans. As the subsidiary companies do not have any liquid assets to sell to repay the loan, should it be recalled, the conclusion reached was that the loan should be categorised as credit impaired.

As part of the assessment of expected credit losses of the intercompany loan receivable, the Directors have assessed the cash flows associated with a number of different recovery scenarios. This included consideration of the:

- > exploration project risk,
- > positive NPV of the Araguaia project as demonstrated by the Feasibility Study
- > positive NPV of the Vermelho Nickel Cobalt Project demonstrated by the Pre-Feasibility Study
- > ability to raise the finance to develop the projects
- > ability to sell the projects
- > market and technical risks relating to the projects
- > participation of the subsidiaries in the Araguaia project

The directors have concluded that certain amounts may not be fully recovered giving rise to the expected credit loss adjustment.

The credit loss allowance was assessed at the date of 31 December 2019. There was no change in the expected credit loss allowance at the year end.

28 Commitments

Capital expenditure contracted for at the end of the reporting period but not yet incurred is as follows:

Group	2019 £	2018 £
Intangible assets	—	—

Capital commitments relate to contractual commitments for metallurgical, economic and environmental evaluations by third parties. Once incurred these costs will be capitalised as intangible exploration asset additions.

29 Contingent Liabilities

Other Contingencies

The Group has received a claim from various trade union organisations in Brazil regarding outstanding membership fees due in relation to various subsidiaries within the Group. Some of these claims relate to periods prior to the acquisition of the relevant subsidiary and would be covered by warranties granted by the previous owners at the date of sale. The Directors are confident that no amounts are due in relation to these proposed membership fees and that the claims will be unsuccessful. No subsequent actions, claims or communications from the various trade union organisations have been received subsequent to the requests for payment. As a result, no provision has been made in the Financial Statements for the year ended 31 December 2019 for amounts claimed. Should the claim be successful, the maximum amount payable in relation to fees not subject to the warranty agreement would be approximately £64,000.

In December 2014, the Group received a writ from the State Attorney in Conceição do Araguaia regarding alleged environmental damages caused by drilling activities in 2011. To ensure proper environmental stewardship, the Group conducts certified baseline studies prior to all drill programmes and ensures that areas explored are properly maintained and conserved in accordance with local environmental legislation. After drilling has occurred, drill sites and access routes are rehabilitated to equal or better conditions and evidence is retained to demonstrate that such rehabilitation work has been completed. In January 2015 the Group filed a robust defence against the writ. A court hearing was held in May 2015 at which documents were requested to confirm that valid environmental authorisations were in place. These were subsequently submitted as requested. No substantive financial claim continues to be made against the Group under the terms of the writ. The Group continues to believe that the writ is flawed and is working towards having it withdrawn in due course. As a result, no provision has been made in the Financial Statements for the year ended 31 December 2019.

30 Financial Instruments

Financial Assets

Group	Fair Value 2019 £	Amortised cost 2019 £	Total 2019 £	Amortised cost 2018 £
Cash and cash equivalents	—	17,760,330	17,760,330	6,527,115
Derivative financial asset	2,246,809	—	2,246,809	—
Trade and other receivables	—	134,726	134,726	24,243
Total	2,246,809	17,890,056	20,141,865	6,551,358

Company	Amortised cost	
	2019 £	2018 £
Cash and cash equivalents	17,393,773	5,487,339
Loans to subsidiaries	55,413,060	49,478,251
Trade and other receivables	135,376	19,327
Total	72,942,209	54,984,977

Financial Liabilities

Group	Amortised cost	
	2019 £	2018 £
Trade and other payables	683,933	280,175
Contingent consideration	6,246,071	3,461,833
Royalty Finance	20,570,411	—
Deferred Consideration	—	1,360,792
Total	27,500,415	5,102,800

Company	Amortised cost	
	2019 £	2018 £
Trade and other payables	321,588	485,131
Contingent consideration	6,246,071	3,461,833
Loans from subsidiary	17,735,009	—
Deferred Consideration	—	1,360,792
Total	24,302,668	5,307,756

Financial instruments not measured at fair value includes cash and cash equivalents, trade and other receivables, trade and other payables, and, contingent and deferred consideration which are discounted.

31 Parent Company Guarantee

Horizonte Minerals plc has, together with other group companies, provided a parent guarantee to Orion Mine Finance related to the \$25 Million Royalty Financing arrangement granted by Nickel Production Services B.V. in respect of the project owned by Araguaia Niquel Metais Ltda during the financial year. The royalty payments are conditional upon entering into commercial production and therefore cannot become due until this is achieved. Horizonte Mineral plc's obligation to pay under the guarantee only arises if Nickel Production Services B.V. as grantor of the royalty or any of the other provider of a parent guarantee fails to make any payment under the royalty agreement. The Company considers the probability of such scenarios to be minimal at the current stage of the business' development and therefore any fair value assessment of such potential financial liability has been deemed to be immaterial

32 Events after the reporting date

Following the end of the financial year the Covid-19 Pandemic expanded from being centred in China, to be a global issue and resulted in widescale disruption to business and social activity. There is now significant and growing uncertainty around economic growth and underlying business conditions. This has impacted both the nickel market and financial markets as well as a logistical issue due to the impact on the ability to travel. On the ground in Brazil, our team is well prepared to continue their work while at the same time ensuring the safety of those in our employ as a top priority. We have implemented strict health and safety policies specifically tailored to Covid-19. The Board considers the pandemic could delay the Araguaia project financing timeline by a number of months, (this will be dependent on the duration of the effects of the Covid-19 virus across global markets).

Statutory Information

Directors

David John Hall (Non-Executive Chairman)
 Jeremy John Martin (Chief Executive Officer)
 William James Fisher (Non-Executive Director)
 Allan Michael Walker (Non-Executive Director)
 Alex Christopher (Non-Executive Director)
 Owen Alexander Bavinton (Non-Executive Director)

Company Secretary

Simon James Retter

Company Number

05676866

Registered Office

Horizonte Minerals Plc
 Rex House
 4-12 Regents Street
 London SW1Y 4RG
 United Kingdom

Nominated Adviser and Broker

Numis Securities Ltd
 The London Stock Exchange Building
 10 Paternoster Square
 London EC4M 7LT
 United Kingdom

Independent Auditor

BDO LLP
 55 Baker Street
 Marylebone
 London
 W1U 7EU
 United Kingdom

Solicitors to the Company

As to English law:

Greenberg Traurig Maher LLP
 200 Gray's Inn Road
 London
 WC1X 8HF
 United Kingdom

As to Canadian law:

Cassels Brock and Blackwell LLP
 2100 Scotia Plaza
 Toronto ON
 M5H 3C2
 Canada

As to Brazilian law:

Freitas Ferraz Advogados
 Belo Horizonte – MG
 Rua Paraiba, no 550, 9 andar, Bairro Savassi
 CEP 30.130.-141 Brazil

Registrar

For shares listed on the London Stock Exchange:

Computershare Investor Services (Ireland) Limited
 3100 Lake Drive
 Citywest Business Campus
 Dublin 24
 D24 AK82
 Ireland

For shares listed on the Toronto Stock Exchange:

Computershare Investor Services Inc.
 100 University Avenue
 8th Floor
 Toronto ON
 M5J 2Y1
 Canada



Horizonte Minerals Plc
Rex House
4-12 Regents Street
London SW1Y 4RG
United Kingdom
T. +44 (0)203 356 2901
E. info@horizonteminerals.com
www.horizonteminerals.com