

MASAN HIGH-TECH MATERIALS

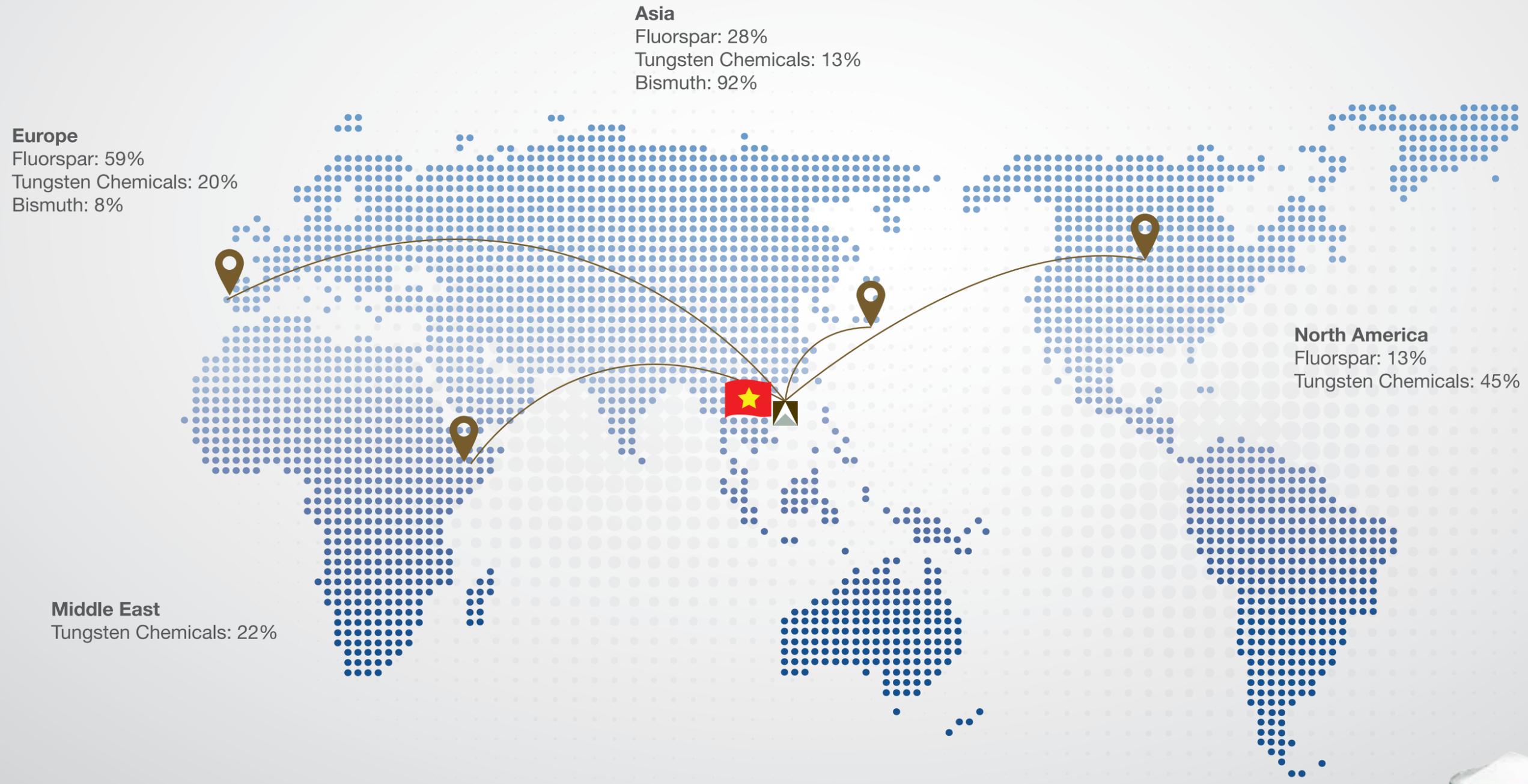
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Go
Global

Annual Report **2019**





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MESSAGE FROM MANAGEMENT TEAM

Dear Shareholders and Stakeholders,

I am privileged and proud to present you the latest instalment in Masan Resources Corporation (MSR) or “Masan Resources” ongoing growth and development journey with the 2019 Annual Report.

In the 2019 Annual General Meeting we updated the company Vision to reflect our wider global aspirations with “From Vietnam Strategic Resources to High Tech Global Materials.”

At the time we saw this as an important milestone reflective of our growing global and production capability ambitions. In hindsight it was highly prophetic, with our announcement in September 2019 of the acquisition of H.C. Starck Group GmbH global tungsten materials business. This acquisition continues to go through respective Government approvals which are expected to be fully granted in Q2 2020.

The H.C. Starck Tungsten acquisition as we have previously communicated enables vertical integration with Masan Resources existing Nui Phao Mining Company Ltd and Masan Tungsten LLC product streams, expanding our product mix, our customer base and our geographical reach.

Go Global

Globally the speed of change continues to accelerate and only those businesses who position themselves to fulfil future unmet needs will survive and prosper. At Masan Resources we plan to survive and prosper. With the H.C. Starck Tungsten GmbH acquisition we are positioning the company to be a core beneficiary of some of these global changes.

Resource scarcity is a major global concern which will only accelerate with ever increasing global populations and rapid urbanization. The acquisition of H.C. Starck Tungsten GmbH provides Masan Resources with a world class recycling technology platform which is both expandable and replicable across locations. This provides access to “urban mines” in perpetuity through recycling scrap or waste and complements our existing long life primary tungsten mine in Vietnam.

The acquisition also delivers to Masan Resources advanced manufacturing centers in each key market geography with production centers in Germany, Canada and China. This places Masan Resources

well to service existing stable markets in developed countries and benefit from growth in developing countries through a global market footprint.

The company through its existing and expanded product range is well placed to benefit from increasing future demand from its products to support increasing demand for high tech materials to support technological advances as well as industrial requirements to meet the infrastructure demands of rapid urbanization in many developing countries.

Financial Performance

In 2019, Net Revenues from operations of VND 4,706 billion were down 31% compared to our net revenue in 2018, reflecting the challenging business environment in 2019.

Weakening global demand with slowing global manufacturing, compounded by the trade war between China and the United States and specifically for Tungsten and Bismuth the Chinese Government sale of the Fanya Exchange Stockpile in China in September 2019 all contributed to lower prices. Average price for the year was down by 22%, 3%, 8% and 32% for Tungsten, Fluorspar, Copper and Bismuth respectively.

Revenue was also impacted by the limited volume of copper concentrate sales in 2019 with limited domestic demand for copper concentrates due to environmental closures of downstream smelters and the lengthy process to get an export copper permit approved. It is expected the export permit will be approved in early 2020. Sales of our Acid Grade Fluorspar remained strong with customers recognizing the superior quality of the product with low impurities and lower contained organics than competitor products and similar sales volumes year on year. Bismuth sales were down due to lower annual production with long term rectification works being undertaken on the circuit while market price weakness prevailed. Tungsten volume sales remained sound given the overall market weakness with sales only down by 5.8%.

Strong stable operating performance at lowest cost of production

MSR maintained its throughput in the Nui Phao Mineral Processing facility at 3.78 million tonnes, down by 2.8% on 2018’s record throughput of 3.89 million tonnes. The MSR team were able to offset some of the impact of the lower prices and volumes through focus on cost control which delivered approximately a 12% reduction equivalent to approximately US\$14million in cash cost savings year on year.

During the year we finally settled the long running arbitration with Jacobs E&C Australia Pty Ltd (“Jacobs”). We are very pleased to have this finally resolved and behind us as an organization.

Continuously developing an integrated approach to our ecosystem

Our Sustainability report, which we encourage you to read, details our performance across people, community, environment, health, safety and security. To a lesser degree this is also covered in the annual report.

On a significant positive note we have returned to zero lost time injuries this year. This is a great achievement and one which all employees and contractors should be proud of.

This year also saw for the first time, all discharge or run off points for water from the project reporting water quality online monitoring with real time transmission of results directly back to the relevant government authorities. This is a great initiative and provides absolute transparency into the management of our online water emissions.

We also launched this year our community development goal of “No One left Behind”, seeking to ensure that all people in the community affected by the project should have their lives improved. Various initiatives have been implemented which are further explored in the body of this report and in more detail in our Sustainability Report.

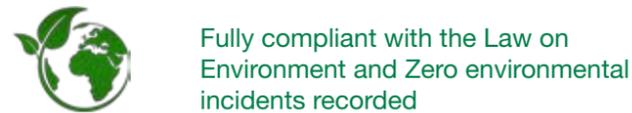
Looking Forward

As we look forward into 2020 the year is looking like a difficult one ahead. At the time of writing this report the world is in the midst of the global Covid-19 pandemic. This will be a challenging time for governments, businesses and communities and people. At Masan Resources we have well developed business continuity plans that have been enacted and will underpin our ability to navigate the global crisis. Our thoughts and prayers are with our customers, suppliers, shareholders and stakeholders at this time. Stay safe.

Once again, I would like to close by thanking our stakeholders for their trust, and you our shareholders, for investing in Masan Resources.

Craig Richard Bradshaw
Chief Executive Officer

KEY HIGHLIGHTS FOR 2019



COMPANY OVERVIEW

Masan Resources is based in Thai Nguyen province, Viet Nam and is the largest producer of mid-stream tungsten productions outside of China. Masan Resources is the wholly owned including Nui Phao Mining Company Ltd (“NPMC”) operating polymetallic mine and modern processing plant and Masan Tungsten Limited Liability Company (“MTC”) operating Tungsten Chemicals Manufacturing.

Masan Resources, with its experienced management team, local access, strong execution capabilities, international partners and capital raising abilities, has developed the right platform to grow globally.

PRODUCTION

Nui Phao Mining Company Ltd

- Tungsten Trioxide (WO₃)
- Fluorspar (CaF₂)
- Copper (Cu)
- Bismuth (Bi)

Masan Tungsten Company Ltd

- Sodium Tungstate (ST)
- Ammonium Paratungstate (APT)
- Blue Tungsten Oxide (BTO)
- Yellow Tungsten Oxide (YTO)



2019 OUTSTANDING AWARDS AND RECOGNITIONS

In 2019, Masan Resources and its subsidiaries have continued to receive a number of awards and public recognitions for various aspects of their performance and outstanding contributions such as: Sustainable Company in Vietnam 2019; The Government’s Emulation Flag; Hi-tech Business; Certificate of Merit for joining hands to build new-style rural areas, etc. The honorable awards and recognitions for the company continues to entrench its position as a leading global hi-tech material producer.



TOP 500 LARGEST ENTERPRISES IN VIETNAM

The Certificate is voted and awarded by Vietnam Report JSC

CERTIFICATE FOR MASAN RESOURCES CORPORATION AS A SUSTAINABLE ENTERPRISE IN VIETNAM 2019

Nominated and awarded by Vietnam Chamber of Commerce and Industry

TEN-YEAR IMPLEMENTATION OF THE EMULATION MOVEMENT “THAI NGUYEN JOINING HANDS TO BUILD NEW-STYLE RURAL AREAS” IN PERIOD 2010 - 2020

The Emulation flag was awarded by Thai Nguyen Labour Federation

OUTSTANDING ACHIEVEMENTS IN PATRIOTIC EMULATION MOVEMENTS OF THAI NGUYEN PROVINCE IN 2019

Thai Nguyen Provincial People’s Committee

TOP 500 FASTEST GROWING ENTERPRISES IN VIETNAM

The Certificate was voted and awarded by Vietnam Report JSC

OUTSTANDING ACHIEVEMENTS IN OCCUPATIONAL HYGIENE AND SAFTY

The merit is awarded by the Labour Safety Department

EXCELLENT ACHIEVEMENTS IN THE EMULATION MOVEMENT OF “GREEN - CLEAN - TIDY - ENSURED LABOUR HYGIENE AND SAFETY”

The Emulation flag was awarded by Thai Nguyen Labour Federation

OUSTANDING ACHIEMENTS IN THE EMULATION MOVEMENT OF STATE BUDGET PERFORMANCE IN THAI NGUYEN PROVINCE

Thai Nguyen Provincial People’s Committee

CERTIFICATE FOR NUI PHAO MINING COMPANY LIMITED TO BE “EMPLOYEE - FAVOURED ENTERPRISE”

Awarded by Thai Nguyen Labour Federation

CERFICATE OF MERIT FOR NUI PHAO MINING COMPANY FOR THE CONTRIBUTIONS TO THE SOCIO-ECONOMIC DEVELOPMENT OF DAI TU DISTRICT

Awarded by Dai Tu District People’s Committee

CERTIFICATE OF MERIT FOR NUI PHAO MINING COMPANY LIMITED FOR THEIR OUSTANDING ACHIEVEMENTS IN THE EMULATION MOVEMENT OF “THAI NGUYEN JOINTLY BUILDS NEW-STYLE RURAL AREA”

Awarded by Thai Nguyen Provincial People’s Committee



VISION

From Vietnam strategic resources to high-tech global materials

MISION

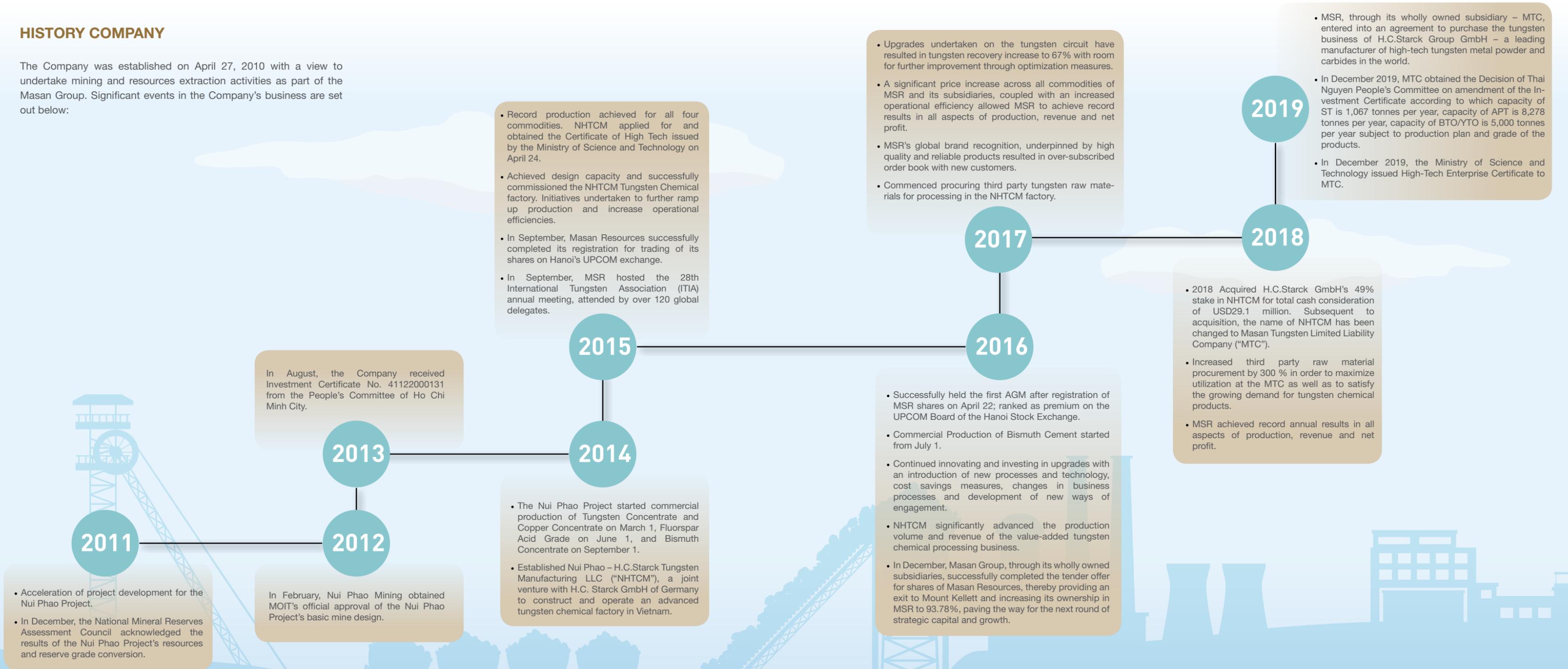
Masan Resources is working, within best-in-class parameters, to develop and expand our business with the aim of increasing shareholder value. We have assembled a team of local and foreign world-class professionals with extensive international and regional experience who are passionate to show the world that a Vietnamese company can lead the transformation of the global tungsten market.

COMPANY PROFILE**Masan Resources Corporation**

Name of the Company	Công ty Cổ phần Tài nguyên Masan
English name	Masan Resources Corporation
Abbreviated name	Masan Resources
Head office	Suite 802, 8 th Floor, Central Plaza, 17 Le Duan, Ben Nghe Ward, District 1, Ho Chi Minh City, Vietnam
Telephone	+84 28 6256 3862
Fax	+84 28 3827 4115
Website	https://masangroup.com/masanresources/
Enterprise Registration Certificate	No. 0309966889 issued by the Department of Planning and Investment of Ho Chi Minh City on April 27, 2010, as amended for the 16 th time on May 20, 2019
Charter Capital	VND 9,892,398,780,000
Stock code on HNX-Unlisted Public Company Market (UPCoM)	MSR

HISTORY COMPANY

The Company was established on April 27, 2010 with a view to undertake mining and resources extraction activities as part of the Masan Group. Significant events in the Company's business are set out below:



MSR FLAGSHIP ASSETS

NUI PHAO MINING COMPANY LTD (NPMC)

The Nui Phao mine, which is operated by Nui Phao Mining Company Ltd (“NPMC”), a wholly owned subsidiary of Masan Resources, is situated within three communes (Hung Son, Ha Thuong, and Tan Linh) of Dai Tu District in Thai Nguyen province. The site is approximately 80 km from Hanoi and is accessible via highway. Road and rail links connect the mine to the nearest ports of Hai Phong and Quang Ninh, from which the products can be shipped to international customers.

As of 2014, the Nui Phao mine’s proven and probable ore reserves are estimated at 66 million tonnes, with an estimated mine life of 20 years.

The major project components are:

- Open pit mine;
- Waste rock disposal facilities;
- Modern mine plant and facilities, including a crushing plant, grinding, thickening, flotation, and gravity recovery facilities;

- A Tailings Storage Facility (TSF) with water and tailings management ponds;
- Buffer zones, relocation sites, haul roads, and mine services.

Products from Nui Phao are shipped to worldwide markets from Quang Ninh Port (in Ha Long City, 197 km to the southeast of the Project site). The port is also used to receive equipment and materials required to run the mine.

NPMC operates at the cutting edge of production of its particular product suite. Investment in research and development continues to deliver processing, equipment and chemical improvements. Processing operations are supported by advanced mining and processing management software to maximize recovery and minimize costs and resource loss.



MASAN TUNGSTEN LIMITED LIABILITY COMPANY (MTC)

Masan Tungsten Limited Liability Company, formerly Nui Phao – H.C. Starck Tungsten Chemicals Manufacturing LLC, was established in 2014 as a Joint Venture between H.C. Starck GmbH, a leading worldwide manufacturer of technological metals and one of the biggest companies in the global tungsten industry, and Nui Phao Mining Company Ltd, a wholly-owned subsidiary of Masan Resources. The objective of the company is to connect NPM’s business to the global Tungsten market and enable deep processing of Vietnam’s strategic resources into higher value tungsten chemicals, thus enabling further extraction of value from the Vietnamese strategic resources. In August 2018, NPM acquired the 49% capital contribution by H.C. Starck GmbH in the Joint Venture. The Joint Venture then changed its name to Masan Tungsten Limited Liability Company (“MTC”).

The four main products of the factory used in production of Tungsten and Tungsten Carbides include APT (Ammonium Paratungstate); BTO (Blue Tungsten Oxide); YTO (Yellow Tungsten Oxide) and ST (Sodium Tungstate).

MTC produces high purity, world-competitive products while operating in Vietnam. This places it among the few tungsten suppliers outside of China who are directly connected to a resource base. The MTC factory has the advantages of secured long term supply source (NPMC) with modern production facilities able to produce high quality products tailored to specific requirements of customers;

- Secured long term supply source (NPMC) with modern production facilities able to produce high quality products tailored to specific requirements of customers;
- Low conversion costs and preferential tax policies;
- Positive market reputation by affiliation with a technology and skills provider – H.C. Starck has almost 100 years of experience and is a leading premium supplier of technology metals with a long-established customer base;
- Technology transfer from H.C. Starck.

These factors have accelerated the acceptance of a Vietnamese business to the world’s tungsten producer map as well as contributed to improved sales performance.



OUR PRODUCTS

Tungsten, Fluorspar, Copper and Bismuth produced at MSR are Vietnamese strategic resources being converted into high-tech global materials.

TUNGSTEN TRIOXIDE (WO₃)

Tungsten is an extremely hard metal with the highest melting point of all metals and high resistance to corrosion.

Our tungsten chemicals end up in a wide variety of applications. Our customers further process the chemicals into carbides and powders, which in turn are further processed into a range of downstream products.

Due to its unique intrinsic properties, tungsten is ideally suited to the needs of all major heavy industries, such as oil & gas, construction, hard metal tooling, energy, automotive and aviation. Tungsten is also an essential element in the steel industry, where its usage ranges from the production of stainless steel, steel alloys to super alloys.



FLUORSPAR (CaF₂)

Fluorspar is an industrial mineral with a number of downstream uses. Its most notable uses are in the production of hydrogen fluoride (HF), various steel and aluminum products, glass and ceramic manufacture and in the growing nitrogen trifluoride (NF₃) sector. Examples of the usages included, air conditioners, Teflon products and fluoxetine medicines.

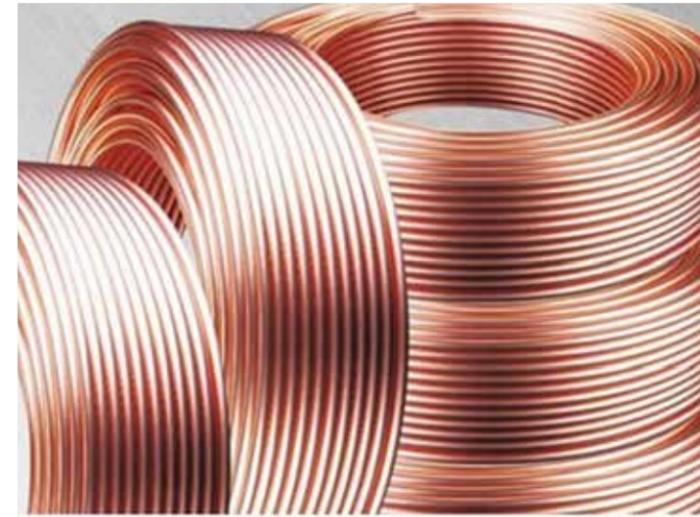
HF is primarily used in the production of refrigerants, fluoropolymer coating and many other pharmaceutical and research purposes. In the steel and aluminum industry, smelting fluorspar is used to enhance the quality of end products. In the manufacture of glass and ceramics, fluorspar is used to make translucent glass and opaque enamels. Nitrogen fluoride is a cleaning gas used in the manufacture of semi-conductors and LCD screens.



COPPER (Cu)

Copper is a soft and malleable metal, and is, after silver, the best natural conductor of heat and electricity.

The largest use of copper is in the manufacture of electrical cables and wiring. The construction industry is the major consumer of copper through electrical systems as well as in plumbing. Its corrosion resistance as well as its aesthetic appeal have made it popular in roofing, and it is commonly found in the construction of domes, spires and doors. Copper has nutrient qualities and is used as a fungicide in the protection of crops and plants as well as enriching the soil. When copper is mixed with zinc it produces brass, which is also used in a variety of industrial applications.



BISMUTH (Bi)

Bismuth is a base metal with consumer and industrial applications.

For the consumer, bismuth-based chemicals are used in the health and pharmaceutical sector through radiation protection and medicines for treatment of nausea, indigestion and ulcer diseases. Due to its non-toxicity, it has also found use in cosmetics. Industrially, Bismuth is used as a non-toxic pigment in the production of certain paints and in the manufacture of electrical components. Bismuth is also used as a catalyst for vehicular emissions control, as well as in the production of reliable work holding devices for heavy machinery such as turbines.



FLUORSPAR APPLICATION

Fluorspar is the commercial name for the mineral fluorite, CaF_2 . In its pure form it consists of 51.1% calcium (Ca) and 48.9% fluorine (F). In nature however, small amounts of silicon, aluminium and magnesium are usually present due to impurities. Fluorspar is found in a wide range of geological environments; however, it most commonly occurs as vein fillings in rocks that have been subjected to hydrothermal activity¹. These veins often contain metallic ores which can include sulphides of tin, silver, zinc, copper and other metals.

Commercial fluorspar is graded in accordance to its quality. The grades depend on the content of fluorspar and the associated amounts of impurities (calcite, quartz, sulphur, arsenic and lead). The grades are:

Acid grade - contains a minimum of 97% of fluorspar, with the remaining 3% being various impurities.

Ceramic grade – contains 85% - 96% fluorspar, with the remaining 4% - 15% being various impurities.

Metallurgical grade – contains between 60% and 84% of fluorspar, with the remaining 16% to 40% being various impurities.

The grade of fluorspar determines its end-use. According to¹, almost two thirds of all fluorspar is of acid grade and is predominantly used in the production of hydrofluoric acid (HF), while approximately one third of fluorspar is of metallurgical grade and primarily used as a flux in steelmaking and in the production of aluminium. A small amount of fluorspar is of ceramic grade, where it is used in the manufacture of specialty glass, ceramics and enamelware.

HF is a highly corrosive acid, capable of dissolving glass and many other materials, primarily oxides. Due to its highly corrosive characteristic, it is used in many industries, such as chemical, mining, refining, glass finishing, silicon chip manufacturing and cleaning. Approximately 60% of global HF production is used in various fluorochemical applications, such as refrigerants, non-stick coatings, medical propellants and anaesthetics, whereas smaller amounts of HF are used in petroleum alkylation, and as

a pickling agent for metal etching in the electronics industry. Furthermore, HF is also used for cleaning of silicon wafers, glass etching and in the production of polished and frosted glass.

In addition to the above specifications of fluorspar, fluorspar can be further differentiated in accordance to its optical characteristics. Two grades can be distinguished here:

Optical grade fluorspar. Specimens of fluorspar with exceptional optical clarity are used as lenses, used in microscopes, telescopes and cameras.

Lapidary grade fluorspar. Samples of fluorspar with attractive colour properties and clarity are used to cut gemstones and makes ornamental objects. Some high quality specimens have an ornamental use and can be carved into figurines and vases.

1. T. Bide, G. Gunn, T. Brown and D. Rayner, "Fluorspar", British Geological Survey (2011), available online at: www.MineralsUK.com.



BISMUTH APPLICATION

Bismuth is a diverse product used in a variety of applications. Pharmaceuticals and chemicals producers as well as consumers of bismuth metal alloys absorb the majority of production.

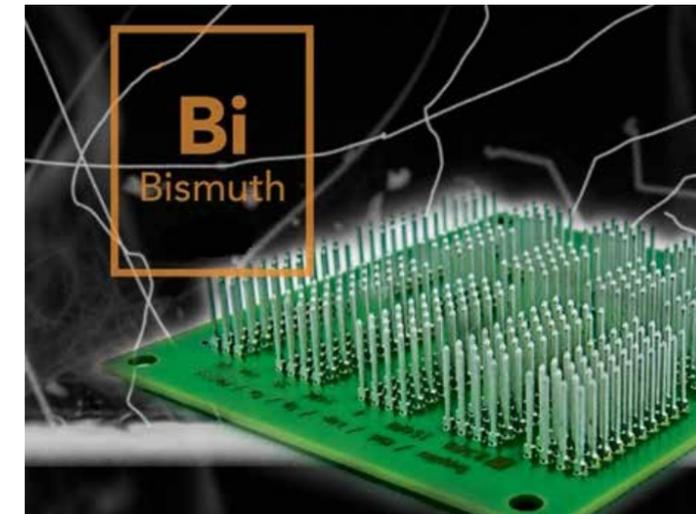
Known for its good antibacterial properties, it is used widely in medical applications. It is used to treat diseases like gastritis, peptic ulcers and even gastric cancers. Many over-the-counter stomach settling remedies also include bismuth as the active ingredient, with some bismuth medicinal compounds also used to treat burns, intestinal disorders, and stomach ulcers in humans and animals. Historically, it was also used in the treatment of syphilis.

The use of bismuth in cosmetics dates back to ancient Egypt and is today used increasingly as a pigment in paint for eye shadows, hair sprays and

nail polishes. Its luster makes it ideal for cosmetics. Pigments produced from bismuth are also used in the manufacture of paints and ceramics.

With an increasing focus on reducing the consumption of lead globally, bismuth alloys have found roles as efficient substitutes. Its low melting point has increased its use in electronics and its low toxicity makes it ideal for use in food processing equipment and copper water pipes. The medical industry has also found it to be a highly effective in X-ray shielding.

In some jurisdictions it is has even been legislated as a replacement for lead shot used in hunting and as sinkers for fishing.



TUNGSTEN CHEMICAL PRODUCTION

The following is a brief description of the current chemicals production of Masan Resources. The plant is designed to process total amount of tungsten concentrate supplied by NPMC, and tungsten concentrate and tungsten bearing materials purchased from third party into high grade Ammonium Paratungstate (APT) via chemical digestion followed by

physical and chemical purification and, finally, crystallization. APT which is then packaged for sale or undergoes calcination to produce tungsten oxides included Blue Tungsten Oxides and Yellow Tungsten Oxides for sale.

Grinding:

Ball mills are used to grind and homogenously mix the incoming Tungsten Concentrate in preparation for the steps of Solvent and Extraction.

Solvent Extraction:

A continuous, closed loop process which transforms the sodium tungstate solution into ammonia tungstate solution, through the use of organic compounds and sedimentation vessels.

Leaching:

Temperature and pressure of the slurry are increased to drive the conversion of calcium tungstate (Tungsten Ore Concentrate) into sodium tungstate.

Purification:

A continuous technical process to remove the remaining impurities.

APT Crystallization:

A batch process which evaporates excess water and ammonia from the solution to facilitate precipitation of ammonium paratungstate (APT). A dryer is used to ensure low moisture content and that the final product is easy to handle.

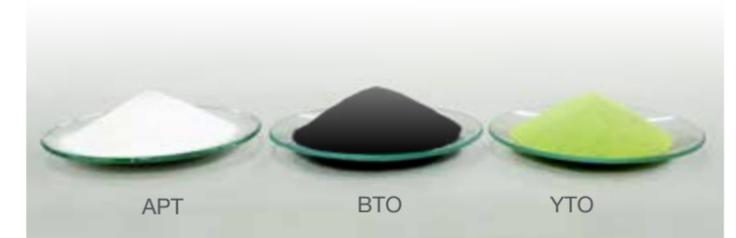
Calcination to BTO / YTO:

A semi-automated process which converts the APT powder into tungsten oxide powder.

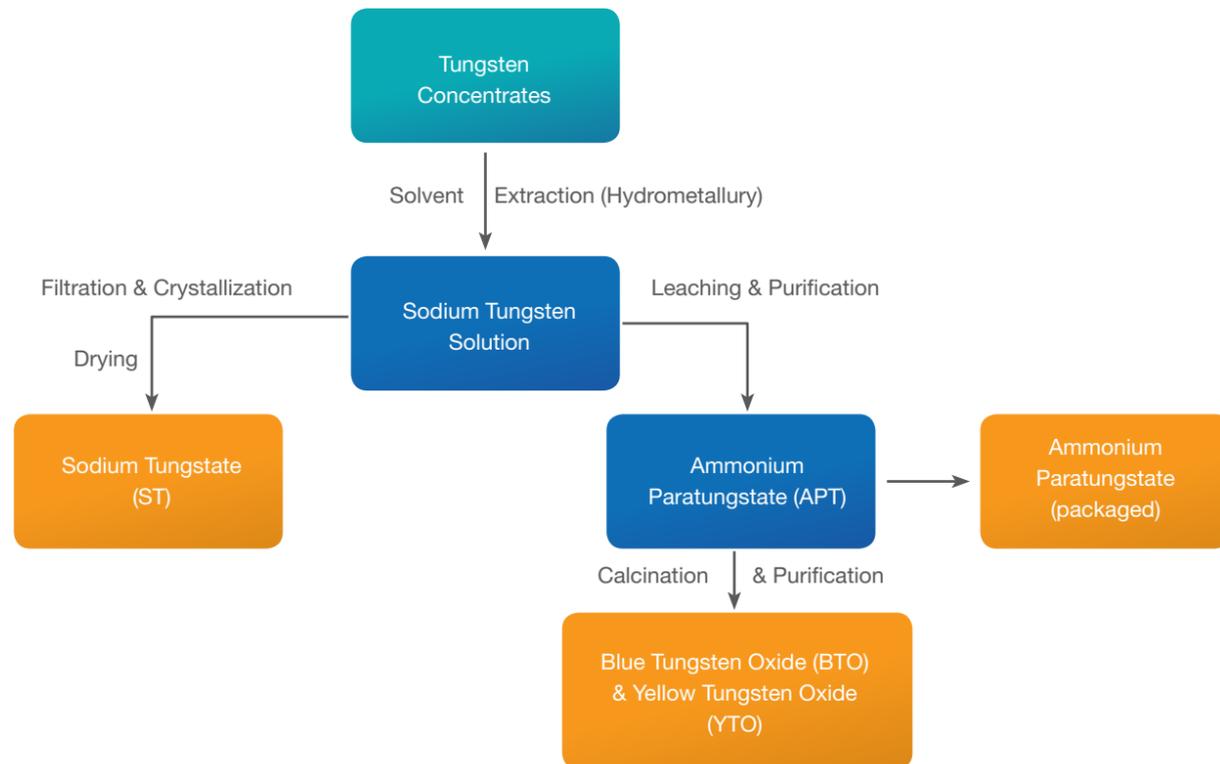
Whilst two grades of oxide are typically produced: Blue Tungsten Oxide (BTO) and Yellow Tungsten Oxide (YTO). There is the ability to customize some characteristics to meet customer specifications.

Blending and Packing:

A process to package the dry APT / BTO / YTO powders into bulk handling format, ready for shipping



No	Name of product	Content (WO ₃)	Design Capacity (tpa)	Current Capacity (tpa)
1	Ammonium Paratungstate ("APT")	> 88.5%	2,000	8,287
2	Blue Tungsten Oxide ("BTO")	> 99.8%	3,000	3,600
3	Yellow Tungsten Oxide ("YTO")	> 99.8%	1,500	1,900
4	Sodium Tungstate (ST)	>71%	0	1,067
	Tungsten concentrate feed (TC)	50+%	11,000	19,000



TUNGSTEN COMMODITY

Tungsten is a rare, earth transition metal. Its use in heavy industries is well-documented and is attributed to its superior physical properties, such as high melting temperatures and hardness. Tungsten together with its compounds is becoming of growing importance to electronics and display technologies and certain niche applications.

In addition to its use as a filament in incandescent light bulbs, it is being increasingly used as a material of choice in the design of field emission guns, used in electron microscopes¹, integrated circuits (ICs), and, due to its high molecular density, as a shielding material from high-energy radiation sources. Tungsten is also used in nanoelectronics technology for fabrication of nanowires², due to its high surface to volume ratio, with the expected applications as pH (potential of hydrogen) probes and gas sensors.

Oxides of tungsten have been shown to exhibit the electro-chromic (EC) effect, i.e. have the ability to reversibly change colour under the influence of an external field. This effect has been used in display technologies^{3,4} to create smart windows, i.e. windows whose optical transparency can be increased or decreased. An example of this is in the Boeing 787 airplane, where, instead of plastic window shades, smart glass is used to allow the passengers to electrically adjust the level of sunlight and visibility. It is expected that the production of smart windows will increase and by 2021 its contribution to the construction market will increase to \$1.3 billion, compared to \$280 million in 2016⁵.

One of the niche applications of tungsten lies with the jewelry industry, where metallic tungsten has drawn a great deal of attention, due to its fashionable appearance and hard wearing properties.

The above mentioned use of tungsten for future applications is, by no means, exhaustive. Rather, it is meant to show that tungsten is finding increasing use for different applications, in addition to its traditional use in heavy industries.



1. Schey, John A. (1987). Introduction to Manufacturing Processes (2nd ed.). McGraw-Hill, Inc.
2. Li Yadong. "From Surfactant-Inorganic Mesostructures to Tungsten Nanowires". *Angewandte Chemie International Edition*, Volume 41, Issue 2, pages 333-335, January 18, 2002, doi: 10.1002/1521-3773(20020118)41:2<333::AID-ANIE333>3.0.CO;2-5.
3. C. M. Lampert, "Smart windows switch on the light," *IEEE Circuits and Devices Magazine*, vol. 8, issue no. 2, pp. 19-26, March 1992.
4. Dane T. Gillaspie, Robert C. Tenent and Anne C. Dillon, "Metal-oxide films for electrochromic applications: present technology and future directions", *Journal of Materials Chemistry*, doi: DOI: 10.1039/c0jm00604a, June 2010.
5. https://www.researchandmarkets.com/research/5ngw3r/smart_windows

TUNGSTEN FOR A CLEANER ENVIRONMENT



Tungsten is the heaviest chemical element known to be biologically active. Its toxicity is low, especially when compared to other metals, however, this is the subject of ongoing studies. In the strive for a cleaner environment, lead has been identified as one of the metals that needs urgent replacement. According to the US Government's Top 100 Hazardous Substances Priority list¹, lead is ranked second. Furthermore, the US Environmental Protection Agency has listed lead as a toxic chemical and have set threshold limits for its concentrations in the air, soil, water and vegetation.

Due to the molecular density similarities between lead and tungsten, tungsten has been proposed as a possible substitution of lead. However, a higher cost and a greater level of machining difficulty of tungsten have often been cited as big obstacles to its introduction, despite its greater level of recycling compared to lead.

An alternative lie with tungsten polymer composites^{2,3}. It is a composition of various resins and tungsten powders, which are mixed together to create thermoplastic tungsten, with the final material density matching that of lead⁴. Such a material is easily malleable, has no toxic constituents and it is resistant to corrosion by weather elements. In addition to its

easily moldable shapes, thermoplastic tungsten exhibits no harmful effects while handling/processing and can be recycled without any without detrimental effects to the environment, making it a viable alternative to lead. In addition to be a good substitute for lead, tungsten polymers have also been proposed to replace depleted uranium in certain applications. The mains reasons for this lay in the similarities in the similar densities of depleted uranium and tungsten composites, however, tungsten composites bear no health risks.

The demand for tungsten is set to experience a recovery in 2020⁵ as supply and demand move closer to balance. This, coupled with the dire need for an alternative for lead, is also predicted to increase the cost of tungsten composites, which makes it an attractive investment opportunity.

1. <https://www.atsdr.cdc.gov/SPL/index.html>
2. <https://www.tungstenheavypowder.com/lead-replacement-sustainability/>
3. <http://tdmfginc.com/portfolio-item/tungsten-polymer>
4. <http://www.tungsten-polymer-radiation-shielding.com/tungsten-polymer-industry-radiation-shielding.html>

SHAREHOLDERS INFORMATION

SHAREHOLDERS STRUCTURE

The shareholder structure of the Company as of December 31, 2019 is as follows:

	Shareholder Structure	31/12/2019			
		Number of Shareholders	Number of Shares held	Value (by par value) (VND)	Shareholding percentage
1	Domestic Shareholders	1,076	969,792,753	9,697,927,530,000	98.03
	Institutions	6	950,759,573	9,507,595,730,000	96.11
	Individuals	1,070	19,033,180	190,331,800,000	1.92
2	Foreign Shareholders	28	19,447,125	194,471,250,000	1.97
	Individuals	27	15,073,958	150,739,580,000	1.52
	Institutions	1	4,373,167	43,731,670,000	0.44
	Total	1,104	989,239,878	9,892,398,780,000	100

Source: List of shareholders of the Company provided by VSD.

LIST OF SHAREHOLDERS HOLDING AT LEAST 5% OF THE CHARTER CAPITAL OF THE COMPANY

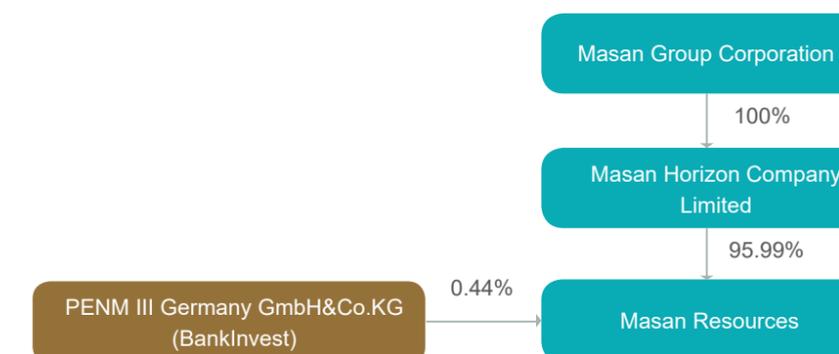
The list of shareholders holding at least 5% of the Charter Capital of the Company as of December 31, 2019 is as follows:

1	Domestic Shareholder	Number of Shares held	Value (by par value) (VND)	Shareholding percentage
	Masan Horizon	949,597,153	94,959,715,300,000	95.99%

Source: List of shareholders of the Company provided by VSD.

MAJOR SHAREHOLDERS - INVESTORS

Ownership Structure of Masan Resources as of December 31, 2019.



INSTITUTIONAL SHAREHOLDERS

Domestic Shareholder

Masan Group Corporation

Masan Group Corporation (the controlling shareholder through its wholly owned subsidiary, via Masan Horizon).

Masan Group Corporation's businesses include Masan Consumer Holdings, the producer of some of Vietnam's most trusted and loved brands across many food and beverage categories (such as Chin-su, Nam Ngu, Omachi, Kokomi, Vinacafe, Wake-up 247, Vinh Hao and Red Ruby); and Masan MEATLife, one of Vietnam's largest fully-integrated ("Feed-Farm-Food" business model) platform, focused on driving productivity in Vietnam's animal protein industry and ultimately directly serving consumers with traceable, quality and affordable meat products, owner of prominent brands like Bio-zeem (high-performance feed) and MEATDeli (the first chilled, branded meat in Vietnam produced by state-of-the-art European processing technology). Masan Group Corporation's other businesses include Masan Resources, one of the world's largest producers of tungsten and strategic industrial minerals, and Techcombank, a leading joint-stock commercial bank in Vietnam.

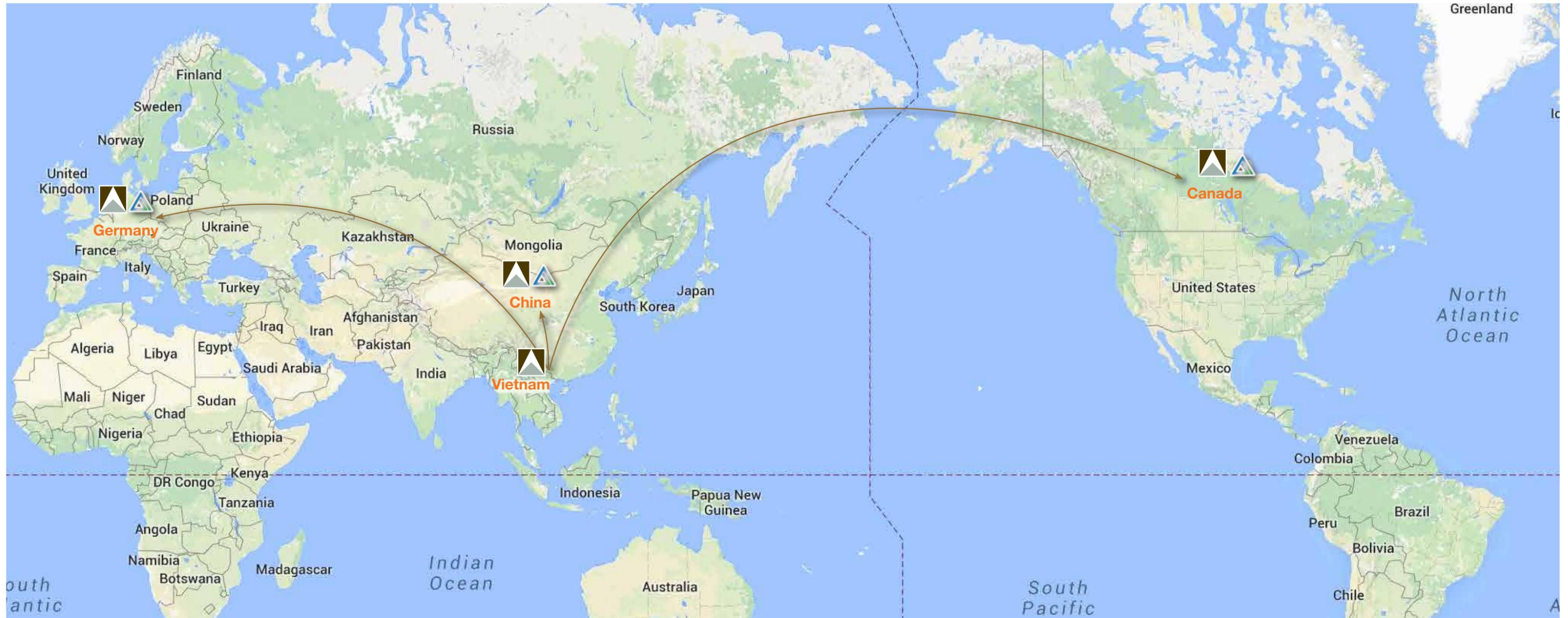
December 3, 2020, Masan Group and VinGroup have made a principle agreement regarding the swapping shares of VinCommerce (including Vinmart and Vinmart+) and VinEco. This agreement aims to maximize operational strengthen of both sides, and more importantly to create a new Consumer – Retails Group that has significant competitiveness as well as the largest nationwide.

Foreign Shareholders

PENM Partners

PENM III, an investment entity managed by BankInvest, holds 4,373,167 ordinary shares (equivalent to 0.44% of the total shares in circulation).

DEVELOPMENT STRATEGIES



COMPANY DEVELOPMENT OBJECTIVES

MSR's vision is to provide Vietnamese strategic resources through to Hi-Tech global materials. We do this currently by producing superior quality industrial chemical products from tungsten, fluorspar and bismuth that are then sold via global distribution networks to our customers across key industries that are focused towards strategic and high-tech customers.

In September 2019, we announced that we are looking to make our operations more sustainable through our acquisition of H.C.Starck's (HCS) global tungsten business. This is a strategic step in executing MSR's vision to become a leading integrated high-tech industrial material platform in the world. H.C.Starck is the global leader in the recycling of both hard and soft tungsten scrap. Annually HCS's operations recycle a similar amount of tungsten to the annual tungsten production of the Nui Phao mine.

We pride ourselves on working together with our customers to continuously support developing specific product efficiencies and emergent industry initiatives.

SOCIAL DEVELOPMENT OBJECTIVES

Ensure our industrial chemical products remain the leading products in the eyes of our customers; ensure strong cost effectiveness in the market; continuous work to enhance our people, processes and systems, to support the changing needs of industrial customers.

Promote the circular economy through the adoption of "Reduce, Reuse & Recycle" philosophy.

Safeguard the ecosystems of our people, our environment, our stakeholders; and,

Ensure superior financial results on a long-term sustainable basis.

MASAN RESOURCES' EXECUTION STRATEGY IS MOVING GLOBAL

Our execution strategy for building post our acquisition of HCS is going global. However, our business continues to be focused around three key areas that translate easily to become a global business:

Local knowledge with global considerations and understanding to facilitate project execution and asset optimization.

Masan Resources believes that a strong local understanding of the local sensitivities of community and customer concerns are critical for successful and sustainable business. We have been able to create a favorable business environment to develop and operate the Nui Phao mine and Masan Tungsten Chemicals by working proactively with our local communities and global customer base via our local and international management team.

Use our ability to access and optimize capital and cash flows to acquire and develop quality assets.

On identification of value accretive scalable assets, Masan Resources has demonstrated the ability to access internal and external capital to acquire, develop and stabilize assets to build sustainable long-term shareholder value.

Masan Resources is hedged against commodity price fluctuations through the diversification of its portfolio of metals and minerals.

The HCS acquisition will further decrease tungsten revenue volatility via an expanded product range and a more diverse customer base.

EVALUATION OF MASAN RESOURCES' EXECUTION STRATEGY IN THE CONTEXT OF INDUSTRY STRATEGY, STATE POLICIES AND THE GLOBAL TRENDS

Masan Resources commits to deliver shareholder value by leveraging its four development pillars:

Organic and inorganic growth

As part of Masan Resources' approach to operations, we are constantly seeking to grow organically by optimizing our existing businesses to maximize productivity and efficiency. Through both research and development, and margin-led improvement plans we aim to continuously reduce our unit cost of production.

Masan Resources is seeking to acquire value accretive, strategically positioned, sustainable, low cost complimentary assets.

Consistent focus on cost discipline and improving productivity

Tungsten as an industry is a long-term play. Masan Resources' consistent focus on cost discipline combined with relentless efforts to improve productivity and customer experiences, enhances its ability to make long-term investment decisions and enables it to withstand pricing and market volatility.

Long-term capital

Masan Resources tailors its capitalization structure to that of the operational profile of its assets. Our listing on UPCOM allows us to minimize our cost of funds going forward as it provides lenders and strategic long-term investors a 'liquid currency' to better manage their risk appetite. Masan Resources through direct investment in research and development activities is also looking to ensure the long-term sustainability of its business.

Leadership

Masan Resources, as a strategically important enterprise in Vietnam and in the global tungsten market, will continue to leverage its leading market position to set new industry standards, both domestically and internationally, for operational efficiency, social and corporate governance, and safety. Our industry leadership position allows us the 'first-look' at accretive opportunities on which we intend to selectively capitalize and grow shareholder value. Masan Resources will also seek to positively influence the development of supportive government policy and industry practices by taking leadership roles in local and international industry advocacy groups.

MASAN RESOURCES MIDTERM STRATEGIES

In the 2018 report, we outlined Masan Resources mid-term business objectives and in 2019, we continue with this objective as;

Consolidate APT tungsten market share from 36% to 50%+ by increasing our Tungsten Chemical Plant capacity to 12,000 metric tons by 2021.

Develop tungsten recycling capabilities as a complimentary source of tungsten raw materials and an ongoing sustainable supply.

In 2019, Masan Resource announced that Masan Tungsten Limited Liability Company (MTC), a wholly owned subsidiary of MSR, signed an agreement to purchase the tungsten business of H.C. Starck Group GmbH. H.C. Starck is a leading manufacturer of high-tech tungsten metal powders and carbides (midstream tungsten products). This is consistent with MSR's medium term strategy - becoming the dominant supplier of Global High-Tech Materials supplying to a global network of customers.

H.C. Starck has production hubs in Europe, North America, and China serving customers across the globe and is one of the leading global manufacturers in downstream Tungsten products including powder, carbide, and chemicals:

- Holds the first or second positions in relevant market regions (EMEA, NAFTA) as well as across industries (Cutting Tools & Wear Parts, Oil & Gas Exploration Tools, Heavy Metal & Mill Products and Chemical End-Users);
- Has a Strong R&D platform with more than 100 years of operations supported by inhouse lab called ChemiLytics. This means that H.C. Starck has a strong brand well recognized in the market place. Their brand is based on proven product quality = command premium in high value product categories (Nano grade, fine grade and extra coarse grade powders);
- Have their own recycling technology and strong relationship with end customers to build robust scrap procurement platform treating approx: 4,800 tons of WO₃ scrap. This gives them a cost advantage in their production lines;

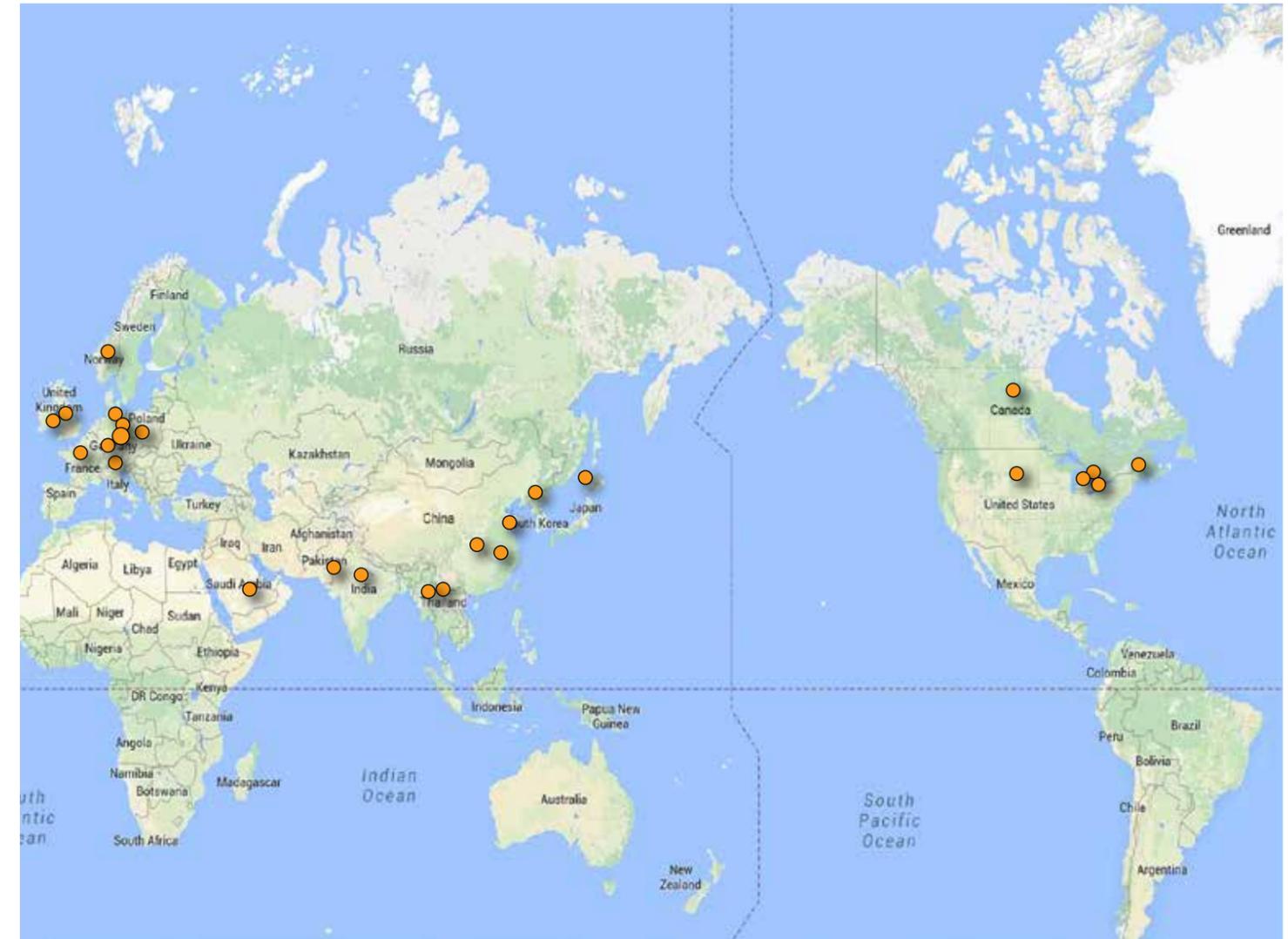
- Worldwide production houses across Germany, North America and China with total capacity of more than 11,000 tons of Tungsten Powders.

This transaction is a strategic step in executing MSR's vision to become a leading integrated high-tech industrial material platform in the world. This combination between MSR today with H.S. Starck will also become the only fully integrated Tungsten supplier of global scale ex-China with following operational synergies:

- De-risks by moving MSR away from commodity price cycle by:
 - (i) Optimizing the portfolio mix between APT and downstream Tungsten products and;
 - (ii) Optimizing inventory flows between the businesses and locations.
- Provides a sustainable supply of raw materials: more than 6,000 tons of APT from NPMC at low cost and 4,800 tons of scrap from HCS.

H.C. Starck has a product portfolio of over 720 product lines primarily used in advanced wear protection and tooling technologies, with considerable competitive advantages such as longer service life and improved design options. H.C. Starck has also developed customized powder morphologies and high-precision blanks and components from tungsten and other refractory metals making a significant contribution to enabling cutting-edge developments in innovative high-tech industries. H.C. Starck's application technology department has outstanding materials expertise, detailed knowledge of metallurgical and chemical processes and long-term experience in numerous innovative markets, applications areas and technologies. Furthermore, our accredited chemical analysis department monitors the manufacture of our products to precise specifications.

Global Distribution Network





TO ACT ON MARKET OPPORTUNITIES...

SCALE + GLOBAL INFLUENCE

One of the world's largest operating tungsten mines with resources underpinning a long-term inventory of raw materials

Largest Ex China primary supplier of upstream tungsten products with 38% market share

TECHNOLOGY + OPERATIONAL CAPABILITIES

Established, experienced and proven management team

LONG-TERM FUNDING

Cashflow generating project enabling self-funding of future projects

Backed by Masan Group + Equity as currency

TO TRANSFORM THE MARKET AND BECOME A CONSUMER-FOCUSED COMPANY

MSR strategy is to move further downstream to be face to face with the final user of our products. In this way, MSR appreciates that the customer should be central to every decision that we make and that this relationship is key to driving superior business results. At MSR, our long-term strategy is to continue to move closer to our customer and take a leadership position in the industries and markets that we operate via a combination of organic evolution and targeted merger and acquisition.



Speed of globalization and increasing demand in strategic resources in the world



GROUP STRUCTURE & MANAGEMENT

GROUP STRUCTURE

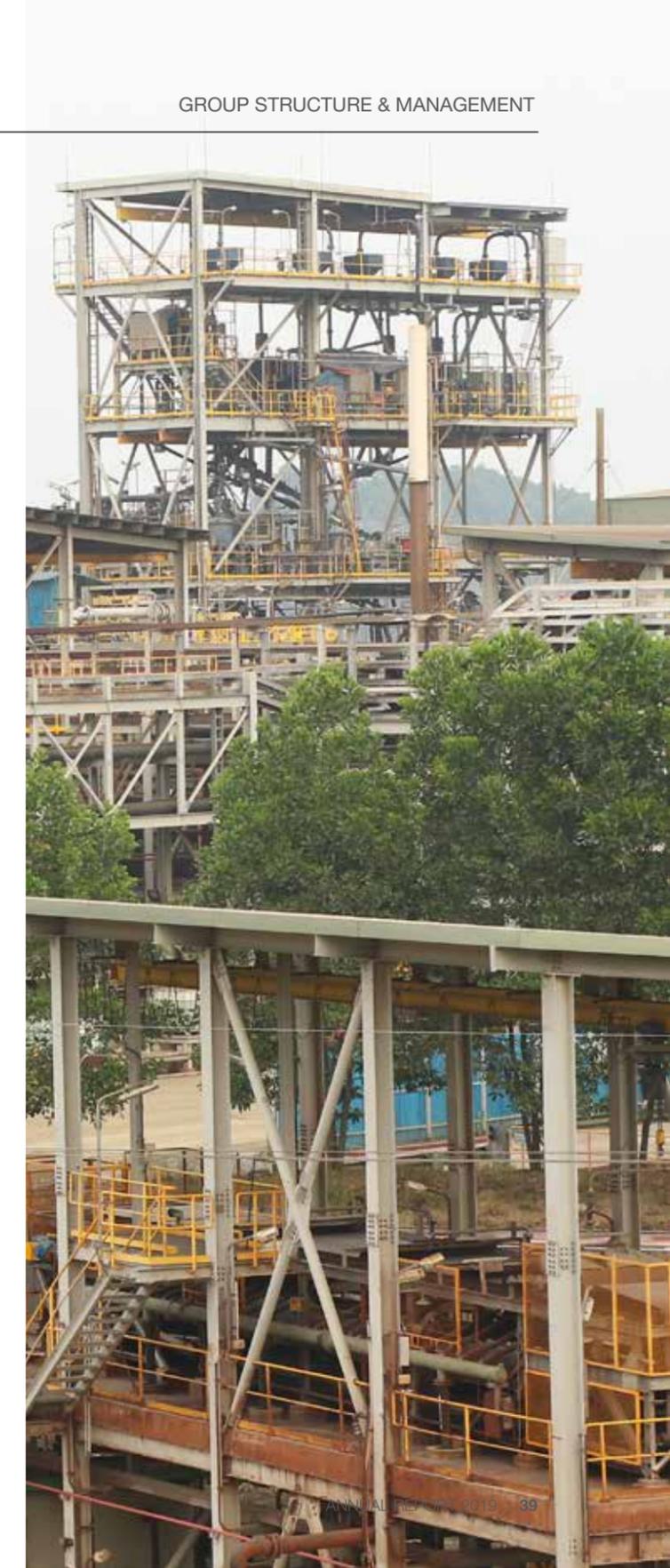
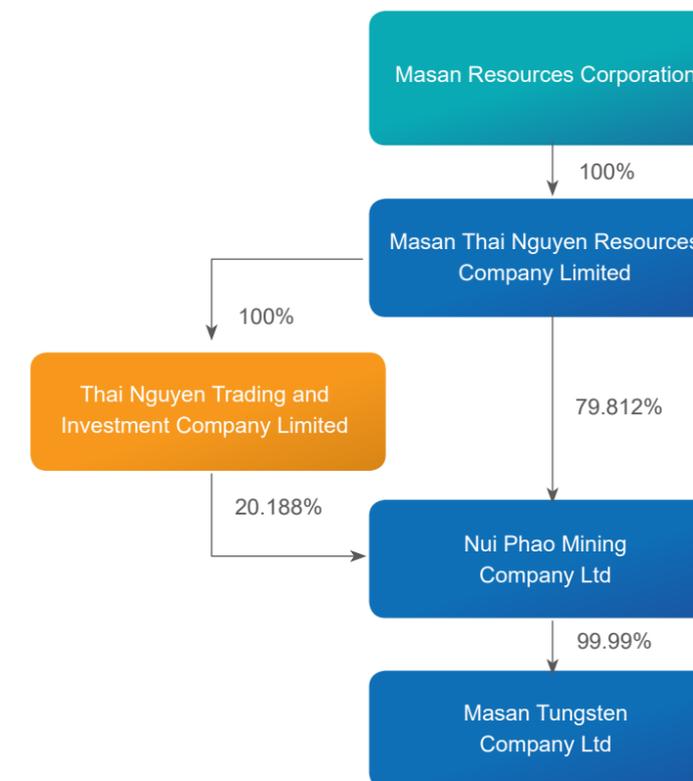
HOLDING COMPANY

Masan Resources Corporation (MSR)

Company name	Masan Resources Corporation
Address	Suite 802, 8 th Floor, Central Plaza, 17 Le Duan, Ben Nghe Ward, District 1, Ho Chi Minh City, Vietnam
Telephone	+84 28 6256 3862
Fax	+84 28 3827 4115
Enterprise Registration Certificate	No. 0309966889 issued by the Department of Planning and Investment of Ho Chi Minh City on April 27, 2010, as amended for the 16 th time on May 20, 2019
Registered charter capital	VND 9,892,398,780,000
Contributed capital in Company	VND 9,892,398,780,000
Website	www.masangroup.com/masanresources
Major business sectors	<ul style="list-style-type: none"> • Market research and public surveys (details: market research); and • Management consultancy (details: investment and management consulting services, excluding financial services).

Organization structure of Masan Resources

The corporate structure of Masan Resources is set out in the diagram below:



CONSOLIDATED SUBSIDIARIES

Masan Thai Nguyen Resources Company Limited (MRTN)

Company name	Masan Thai Nguyen Resources Company Limited
Address	Suite 802, 8 th Floor, Central Plaza, 17 Le Duan, Ben Nghe Ward, District 1, Ho Chi Minh City, Vietnam
Telephone	+84 28 6256 3862
Fax	+84 28 3827 4115
Enterprise Registration Certificate	No. 0309960069 issued by the Department of Planning and Investment of Ho Chi Minh City on May 7, 2010, and amended for the 6 th time on June 21, 2019
Registered charter capital	VND 6,423,857,726,169
Contributed capital in Company	VND 6,423,857,726,169
Capital contribution ratio of the Company	100% of charter capital
Major business sectors	<ul style="list-style-type: none"> • Market research and public survey (details: market research); and • Management consultancy (details: investment and management consulting services, excluding financial services).

Thai Nguyen Trading and Investment Company Limited (TNTI)

Company name	Thai Nguyen Trading and Investment Company Limited
Address	Suite 802, 8 th Floor, Central Plaza, 17 Le Duan, Ben Nghe Ward, District 1, Ho Chi Minh City, Vietnam
Telephone	+84 28 6256 3862
Fax	+84 28 3827 4115
Enterprise Registration Certificate	No. 0310352925 issued by the Department of Planning and Investment of Ho Chi Minh City on October 15, 2010, and amended for the 6 th time on April 17, 2014
Registered charter capital	VND 1,624,851,500,000
Contributed capital in Company	VND 1,624,851,500,000
Capital contribution ratio of the Company	100% of charter capital
Major business sectors	<ul style="list-style-type: none"> • Management consultancy (details: investment and management consulting services, excluding financial and accounting consulting services); • Advertising; • Market research and public surveys (details: market research); • Extraction of precious and rare minerals (not operating at the head office); • Extraction of non-ferrous metals (not operating at the head office); • Trade promotion; and • Financial support services, not classified (details: investment consulting services, excluding legal, financial and accounting consulting services).

TNTI was incorporated on October 15, 2010 as a one-member limited liability company to carry out the business of consultancy (excluding financial and accounting consultancy), advertising, market research and trading promotion. Among the group of companies established to develop the Nui Phao Project were MRTN, Nui Phao Mining and TNTI.

Nui Phao Mining Company Ltd (NPMC)

Company name	Nui Phao Mining Company Ltd
Address	Hamlet 2, Ha Thuong Commune, Dai Tu District, Thai Nguyen Province, Vietnam
Telephone	+84 24 37182490
Fax	+84 24 37182491
Enterprise Registration Certificate	No. 4600864513 issued by the Department of Planning and Investment of Thai Nguyen Province on July 5, 2010, and amended for the 11 th time on July 5, 2019
Registered charter capital	VND 8,048,709,226,169
Contributed capital in Company	VND 8,048,709,226,169
Capital contribution ratio of the Company	100% of charter capital
Major business sectors	<ul style="list-style-type: none"> • Extraction of precious metal ores (exploitation, processing of tungsten, fluorspar, bismuth, copper and gold); • Extraction of other, non-ferrous containing ore; • Architecture and related technical consulting (geological and water resource exploration (mineral exploration)); • Assistance service activities for mining of other, not mentioned above, ores; • Production of precious metal ores; • Sale of the metals and metal ores (excluding sale and purchase of gold bars); • Management consultancy; • Other special office assistance; and • Import and export of the products traded by the Company.

Masan Tungsten Limited Liability Company (MTC)

Company name	Masan Tungsten Limited Liability Company
Address	Hamlet 2, Ha Thuong Commune, Dai Tu District, Thai Nguyen Province, Vietnam
Telephone	+84 24 73075588
Fax	+84 24 37182491
Enterprise Registration Certificate	No. 4601163743 issued by the People's Committee of Thai Nguyen province on January 15, 2014, amended for the 7 th time on October 16, 2018
Registered charter capital	VND 1,250,000,000,000
Contributed capital in Company	VND 1,250,000,000,000
Capital contribution ratio of the Company	100% of charter capital
Major business sectors	<ul style="list-style-type: none"> • Manufacture of non-ferrous metals and rare metals (processing tungsten for export or domestic trade).

MANAGEMENT STRUCTURE

MSR GENERAL MEETING OF SHAREHOLDERS

The General Meeting of Shareholders is the supreme authoritative body of the Company. The annual General Meeting of Shareholders shall be organized once a year. The annual General Meeting of Shareholders shall be convened within 4 months from the end of the financial year, or as may be extended, but not beyond 6 months as from the end of the fiscal year, to the extent permitted by the business registration authority and at the request of the Board of Directors.

MSR BOARD OF DIRECTORS

The Board of Directors is responsible for the overall management and direction of the Company. The Board of Directors typically meets when required, but at least every quarter, to review and monitor the Company's financial position and operations.

The current Board of Directors comprises four (4) members. The term of the Board of Directors is five years. The term of each member of the Board of Directors shall not exceed five years, with a possibility of re-election at the end of the term. The Board of Directors may elect, dismiss or remove the Chairman of the Board of Directors.

List of members of the Board of Directors

The current members of the current Board of Directors are as follows:

Name	Position in the Company	Executive/ non-executive member	Date of appointment
Mr. Danny Le	Chairman of the Board of Directors	Non-executive member	19/04/2019
Mr. Nguyen Thieu Nam	First Vice Chairman of the Board of Directors	Non-executive member	19/04/2019
Dr. Nguyen Dang Quang*	Member of the Board of Directors	Non-executive member	18/02/2013
Mr. Nguyen Van Thang	Member of the Board of Directors	Non-executive member	22/04/2016
Mr. Craig Richard Bradshaw	Member of the Board of Directors	Executive member	19/04/2019

* Dr. Nguyen Dang Quang submitted his resignation to the Board of Directors on December 13, 2019

MSR MANAGEMENT TEAM



Mr. Craig Richard Bradshaw
Chief Executive Officer

Mr. Craig Richard Bradshaw (Chief Executive Officer) has over 25 years' experience in the mining business, spanning mining and processing operations, logistics, and sales and marketing in Australia, Thailand and Lao PDR. Mr. Bradshaw was previously Senior Commercial Manager for Lang Xang Minerals Ltd Sepon Mine. He has also previously served as the Country General Manager for Thailand for Toll, Australia's largest fully integrated logistics service provider. Prior to this Mr Bradshaw worked in management roles for Mount Isa Mines Limited ("MIM") and Xstrata.



Mr. Stuart James Wells
Chief Financial Officer

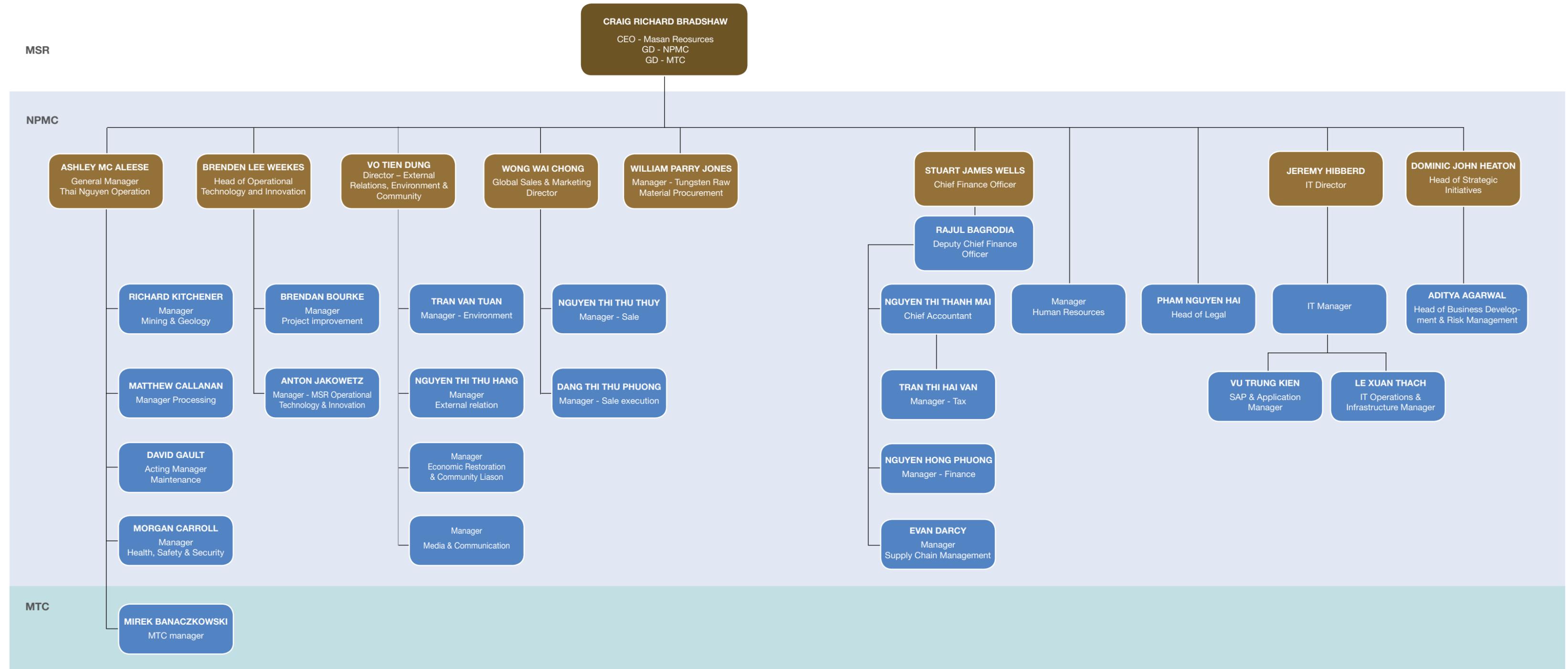
Mr. Stuart James Wells (Chief Financial Officer) Mr. Stuart James Wells has more than 23 years of financial experience across a range of sectors with 16 years spent in the natural resources industry working across Tungsten, Gold, Nickel, Alumina, Metallurgical Coal and Oil & Gas for both operational and greenfield projects working in Australia, Indonesia, United Kingdom and now Vietnam. Prior to joining Masan Resources he was the Finance Manager for PT Agincourt Resources which owns the Martabe Gold Mine in Sumatra, Indonesia and prior to that spent 4.5 years as the Head of Finance for BHP's MetCoal project (IndoMet Coal) in Indonesia. He is a member of CPA Australia.



Ms. Nguyen Thi Thanh Mai
Chief Accountant

Ms. Nguyen Thi Thanh Mai is a Bachelor of Accounting at National Economics University and holds an Auditor Certificate issued by the Ministry of Finance. She has more than 10 years of experience in auditing at Arthur Andersen Vietnam Limited Company and KPMG Limited. Prior to joining MSR, she was the Chief Accountant in charge of accounting, finance and tax at Ban Phuc Nickel Mines Limited Liability Company for 12 years.

THE ORGANIZATION CHART OF MSR



MANAGEMENT STRUCTURE OF NPMC



Mr. Nguyen Thieu Nam
Chairman



Mr. Nguyen Van Thang
Deputy Chairman



Mr. Danny Le
Member



Mr. Craig Richard Bradshaw
Member

The rights and obligations of the Members' Council, the Chairman and the General Director are regulated by the charter of NPMC. According to the charter of NPMC, the Members' Council is the highest decision-making body of NPMC.

The Members' Council is responsible for the management of the businesses and for the appointment of principal senior management of NPMC. Chairman of the Members' Council is elected by the Members' Council. The term of office of the Chairman is five years and can be re-elected without any limit.

List of the members of the Members' Council of NPMC

Name	Position in the Company	Date of appointment
Mr. Nguyen Thieu Nam	Chairman of the Members' Council of NPMC	19/04/2019
Mr. Nguyen Van Thang	Vice Chairman of the Members' Council of NPMC	09/11/2010
Mr. Danny Le	Member of the Members' Council of NPMC	19/04/2019
Mr. Craig Richard Bradshaw	Member of the Members' Council of NPMC	19/04/2019

MANAGEMENT TEAM OF NPMC



Mr. Craig Richard Bradshaw
General Director

Mr. Craig Richard Bradshaw has over 25 years' experience in the mining business, spanning mining and processing operations, logistics, and sales and marketing in Australia, Thailand and Lao PDR. Mr. Bradshaw was previously Senior Commercial Manager for Lang Xang Minerals Ltd Sepon Mine. He has also previously served as the Country General Manager for Thailand for Toll, Australia's largest fully integrated logistics service provider. Prior to this Mr Bradshaw worked in management roles for Mount Isa Mines Limited ("MIM") and Xstrata.



Mr. Vu Hong
Deputy General Director

Mr. Vu Hong has more than 30 years of experience in project development including six years at the World Bank, which took him from Vietnam to Lao PDR, East Timor, China and the Philippines. Mr. Vu Hong graduated from Hanoi Water Resources University and has a Master's degree in Hydrology from the University of Roorkee, India. Mr. Vu Hong is a member of the executive committee of the Business Association of Geology and Minerals of Vietnam (VAGME).

On July 24, 2019, the Members' Council of NPMC approved the removal of Mr. Vu Hong from position as Deputy General Director on the basis that Mr. Vu Hong had reached the age of retirement. The removal was effective as from August 31, 2019.



Mr. Stuart James Wells
Chief Financial Officer

Mr. Stuart James Wells has more than 23 years of financial experience across a range of sectors with 16 years spent in the natural resources industry working across Tungsten, Gold, Nickel, Alumina, Metallurgical Coal and Oil & Gas for both operational and greenfield projects working in Australia, Indonesia, United Kingdom and now Vietnam. Prior to joining NPMC, he was the Finance Manager for PT Agincourt Resources which owns the Martabe Gold Mine in Sumatra, Indonesia and prior to that spent 4.5 years as the Head of Finance for BHPs MetCoal project (IndoMet Coal) in Indonesia. He is a member of CPA Australia.



Mr. Wong Wai Chong
Director – Global Sales and Marketing

Mr. Wong Wai Chong has more than 33 years of experience in Asian regions and member of global key account management team for Kennametal, Sulzer Metco, Bodycote, H.C. Starck and Siemens on equipment, raw materials and applications for rechargeable battery, chemical mill, electronic and optics, hard metals, and advanced ceramics. Mr. Wong has strong global and regional connections in the upstream & downstream manufacturing activities and end use applications. He holds double degrees in Marketing & Management and numerous OJT awards certifications in Germany, Switzerland, Japan, Canada and USA.



Mr. Brenden Lee Weeks
Head of Operational Technology and Innovation

Mr. Brenden Lee Weeks a qualified Chemical Engineer, has more than 20 years of extensive experience in the design, commissioning and operation of processing facilities in the natural resources industry throughout the world including Australia, Laos, Spain, New Caledonia and now Vietnam. He has the ability to lead multi-disciplinary teams to develop innovative solutions and optimise complex mineral and metal processing facilities working across Tungsten, Fluorite, Bismuth, Copper, Nickel and Gold. Prior to joining NPMC he was the Process Manager for MMG Limited at their Sepon Copper and Gold Operation in Laos.



Mr. Vo Tien Dung
Director – External Relations, Environment & Community

Mr. Vo Tien Dung has 20 years' experience in mining industry, of which 07 years working in the management and operation role of various mining projects in many provinces in Vietnam such as Thai Nguyen, Yen Bai, Ha Giang, etc. In addition, Mr. Dung also has work experience in the International Investment Fund for the natural resources projects. Mr. Dung holds a PhD in Geology and Mineral Resources Engineering, Master's degree in Geology from Hanoi University of Mining and Geology and a Master of Science in Environmental Assessment and Management at University of Salford, Manchester, UK. Prior to joining NPMC, he was General Director of Viet Minerals Mining Processing Joint Stock Company (VMPCo) and previously as Deputy General Director of Bao Lai Investment JSC (BLG). He is now Vice Chairman of Vietnam Association of Geological and Mineral Enterprises, and the member of the Executive Board of the Union of Geological Sciences of Vietnam. He has developed a good relationship with government agencies at all levels. He can work well with local community, domestic and international mining companies and organizations.



Mr. Jeremy Hibberd
Director – Information Technology

Mr. Jeremy Hibberd is a Senior Information Technology Leader with wide-ranging experience leading strategic and transformational IT programs and having strong technical and people leadership skills developed over 24 years' managing IT services across a number of sectors internationally. Prior to joining Masan Resources he was the Senior IT Operations Manager for Queensland Rail, and has extensive experience in the Mining sector as the Global IT Operations Manager for Zinifex, OZ Minerals and MMG.



Mr. Ashley Mc Aleese
General Manager – Thai Nguyen Operations

Mr. Ashley Mc Aleese is a qualified Minerals Processing Engineer with more than 17 years of operational experience across a range of commodities that include Copper, Gold, Silver, Zinc and Lead on both operating and greenfield projects working in Australia, Indonesia, Papua New Guinea and now Vietnam. Prior to joining NPMC, he was the Operations Manager for PT Batutua Tembaga Raya which owns the Wetar Copper Project on Wetar island, Indonesia and prior to that was Operations Manager for PT Natarang Mining in Indonesia. He is a member of Australasian Institute of Mining & Metallurgy.



Mr. Dominic Heaton
Head of Strategic Initiatives

Mr. Dominic holds a Bachelor of Science from James Cook University, Townsville, Australia and a Post Graduate Diploma in Mineral Processing Technology from La Trobe University, Australia. He has also completed an Advanced Management Program with the Mt Eliza arm of the Melbourne Business School. Mr. Dominic is the member of Australian Institute of Mining & Metallurgy and Australian Institute of Company Directors. Over the course of more than 27 year career in the mining industry, Mr. Dominic has managed projects in remote areas of Australia, Papua New Guinea, Indonesia, and Lao PDR. Prior to joining Masan Resources, he served a variety of management roles at Aurora Gold/Oxiana/OZ Minerals/MM Group, working as General Manager of Sepon Gold, Laos and General Manager of Operations of Martabe, Indonesia.

MANAGEMENT STRUCTURE OF MTC



Mr. Nguyen Van Thang
Chairman of the Members' Council



Mr. Nguyen Thieu Nam
Member of the Members' Council



Mr. Craig Richard Bradshaw
Member of the Members' Council

According to the Charter of MTC, the organizational structure of MTC consists of the Members' Council and the General Director. The Members' Council is the supreme decision-making body of MTC and consists of a maximum of four (04) representatives appointed by NPMC and TNTI, of which up to three (03) representatives are to be appointed by NPMC and one (01) representative is to be appointed by TNTI.

The Members' Council is responsible for the management of the businesses and the appointment of principal senior management of MTC. The Members' Council has one Chairman who is nominated by NPMC and elected by the Members' Council. The term of office of the Chairman is five years and can be re-elected without any limit.

MANAGEMENT TEAM OF MTC



Mr. Craig Richard Bradshaw
General Director

Mr. Craig Richard Bradshaw has over 25 years' experience in the mining business, spanning mining and processing operations, logistics, and sales and marketing in Australia, Thailand and Lao PDR. Mr. Bradshaw was previously Senior Commercial Manager for Lang Xang Minerals Ltd Sepon Mine. He has also previously served as the Country General Manager for Thailand for Toll, Australia's largest fully integrated logistics service provider. Prior to this Mr Bradshaw worked in management roles for Mount Isa Mines Limited ("MIM") and Xstrata.



Mr. Rajul Bagrodia
Chief Financial Officer

Mr. Rajul Bagrodia has more than 12 years of experience in finance and control function across a range of sector including mining, automobile, real estate and consultancy services in India, Africa and Europe. Prior to joining Masan Resources, Mr. Bagrodia was previously Internal Auditor for Auto components manufacturing company in Europe where he originated and managed mandates that ranged from setting up finance system for green field projects, turnaround stressed assets, due diligence and operation process reviews. Mr. Bagrodia is Chartered Accountant from the Institute of Chartered Accountants of India, India.



Mirek Banackowski
MTC Operations Manager

Mr. Miroslaw Banackowski has more than 30 years' experience in the mining and processing business including commissioning, design and construction, operations, metallurgy, Technical and Engineering in Australia, Laos, New Caledonia. Prior to joining to Masan Resources, Mr Miroslaw has worked with MMG, Vale, Scott Dalley Francks, Minara Resources (Glencore International), Energy Resources of Australia - Ranger Mine (North Limited), and Pasmaico Metals EZ - Hobart (North Limited). He holds a bachelor's degree of Applied Science in Metallurgy from South Australian Institute of Technology.

MSR SUPERVISORY BOARD



Ms. Doan Thi My Duyen
Head of the Supervisory Board of MSR

Ms. Doan Thi My Duyen is the head of the Supervisory Board of MSR, and the Chief Accountant of MSN. At MSN, she is in charge of reporting on financial conditions and announcement and management of the financial matters. Prior to joining Masan Group, she was with KPMG Limited, Vietnam. She holds an MBA in Accounting from the University of Economics of Ho Chi Minh City, Vietnam and is a member of the Association of Chartered Certified Accountants (ACCA).



Mr. Nguyen Quynh Lam
Member of the Supervisory Board of MSR

Mr. Nguyen Quynh Lam is a member of the Supervisory Board of MSR, and the head of the Supervisory Board of both MSN and MSC. He joined Masan Group in 2001 and has held various senior financial positions in Masan Group companies. He holds a BSc in Mining Economics.



Ms. Pham Quynh Nga
Member of the Supervisory Board of MSR

Ms. Pham Quynh Nga is a member of the Supervisory Board of MSR, MSN and ANCO. She joined the Masan Group in 2015 and is holding a Senior Accountant position. Prior to joining the Masan Group, she worked for KPMG Limited (Vietnam). She is a Certified Public Accountant (CPA) of Australia.

SUSTAINABILITY COMMITTEE

No.	Members of Sustainability Committee	Position	Day becoming/no longer member of the Sustainability Committee	Number of attendances	Percentage	Reasons for absence
1	Mr. Dominic John Heaton	Committee Chairman	22/04/2016	2/2	100%	
2	Mr. Nguyen Van Thang	Member	23/06/2017	1/2	50%	
3	Mr. Craig Richard Bradshaw	Member	23/06/2017	2/2	100%	
4	Mr. Tran Phuong Bac	Member	23/06/2017	1/2	50%	
5	Mr. Vo Tien Dung *	Member	14/01/2020	1/2	50%	
6	Mr. Chetan Prakash Baxi *	Member	23/06/2017	0/2	0%	Ceased to be a member as from April 16, 2019
7	Mr. Vu Hong *	Member	23/06/2017	1/2	50%	Ceased to be a member as from August 31, 2019

*Note: Mr. Chetan Prakash Baxi ceased to be a member of the Sustainability Committee as from April 16, 2019 and Mr. Vu Hong ceased to be a member of the Sustainability Committee as from August 31, 2019. Mr. Vo Tien Dung – NPMC Director of External Relations, Community and Environment was appointed as member of the Sustainability Committee as from 15 January 2020.

RISK & AUDIT COMMITTEE

No.	Members of Risk & Audit Committee	Position	Day becoming/no longer member of the Risk & Audit committee	Number of attendances	Percentage	Reasons for absence
1	Mr. Craig Richard Bradshaw *	Committee Chairman	21/09/2017	2/2	100%	
2	Mr. Dominic John Heaton	Member	21/09/2017	2/2	100%	
3	Mr. Morgan Carroll	Member	21/09/2017	2/2	100%	
4	Mr. Tran Phuong Bac	Member	21/09/2017	1/2	50%	
5	Mr. Pham Nguyen Hai	Member	21/09/2017	2/2	100%	
6	Mr. Chetan Prakash Baxi *	Committee Chairman	22/04/2016	0/2	0%	Ceased to be a member as from April 16, 2019

*Note: Mr. Chetan Prakash Baxi ceased to be Chairman/member of the Risk Committee as from April 16, 2019. Mr. Craig Richard Bradshaw was appointed as Chairman of the Risk Committee as from 15 January 2020.



MSR's vision is to become the largest ex-China global tungsten chemicals producer and increase the midstream tungsten products market share

BUSINESS OPERATION REPORT

BUSINESS OVERVIEW REPORT

2019 ECONOMIC REVIEW

2019 began positively with the US and global manufacturing sectors showing continued but slowing growth from 2018. With the rise of trade and political tensions, by year-end global growth was at 2.9% growth, against a 20-year average of 3.8%pa. Overall EU growth was down to 0.1% for Q4 2019.

In the advanced economies and China these developments magnified cyclical and structural changes already under way. With the economic outlook turning less certain in H2 2019, firms reduced capital spending plans, and global purchases of machinery and equipment decelerated. Industries such as aerospace, automobiles, and consumer durables all where tungsten is heavily consumed, saw additional regulatory changes, new emission standards, drops in consumer sentiment, increased tax, and product recalls that negatively impacted on sales.

Faced with slowing demand, firms scaled back industrial production, and global trade flows, which underpins global supply chains and is intensive in durable final goods and the components used to produce them, slowed to a standstill.

As data accumulated verifying these trends central banks reacted with additional fiscal and monetary policy support. Several including the US Federal Reserve, the European Central Bank (ECB), and the central banks of large emerging markets Brazil, India, Mexico and Russia cut interest rates, the US & ECB restarted asset purchases, while the BoJ maintained negative rates whilst increasing sales tax.

These policies have generally averted a deeper slowdown. Lower interest rates, liquidity injections and supportive financial conditions reinforced purchases of nondurable goods and services, encouraging modest job creation. Easing trade tensions late in the year, tight labor markets and minor wage growth seemed to support consumer confidence, and improved household spending initially gave expectation for a positive economic outlook to develop in 2020.

2019 INDUSTRIAL METAL & CHEMICAL MARKETS

Tungsten prices continued on strongly from 2018, range bound \$255-270/mtu through to mid-May based on good balance in the market demand and supply dynamics. As industrial demand slowed towards the end of Q2, and the announcement of the auction process for the Fanya tungsten stockpile, prices declined through to early September (\$195/mtu), then post the Fanya auction rose consistently through to the end of the year finishing at \$240/mtu. Overall, the index price finished the year down approximately 13% year on year.

Fluorspar prices also started the year strongly, and whilst demand also weakened in H2 2019 the anticipated supply side increase failed to materialize allowing spot pricing to finish the year strongly. A push by Chinese refrigerant gas producers to maximize end-product exports into the EU ahead of product quotas being introduced also supported higher spot pricing into mid-Q4. Overall, the index price finished the year up approximately 23% year on year.

Similarly, the Copper market started off the year on a high, posting increases through until mid-Q2. The strength was driven in part by limited supply due to lower mine & refinery output, then dropping away as the US doubled tariffs on Chinese imports in response to fading trade talks, and a global decline in industrial activity. Overall, the index price finished the year up approximately 3% year on year.

Bismuth suffered from oversupply and lack of demand, the auction of Fanya stocks has not resulted in any material improvement in market sentiment. Overall, the index price finished the year down approximately 42% year on year.

METAL AND CHEMICAL PRICES	Unit	Average 2019	Average 2018	% change	At 31.12.19	At 31.12.18
APT European Low*	\$/mtu	240	308	-22%	234	270
Fluorspar Acid-Grade**	\$/t	480	493	-3%	425	345
Copper*	\$/t	5,999	6,523	-8%	6,156	5,965
Bismuth Low*	\$/lb	3.0	4.4	-32%	2.8	4.8

*Metals Bulletin, # Industrial Minerals

2020 ECONOMIC & FINANCIAL OUTLOOK

At the end of 2019, based on restocking and increasing market demand (inquiries and sales) for the company's major revenue drivers (tungsten and fluorspar) the company was expecting global industrial output to return to modest growth post the cyclical lunar new year slowdown at the end of January 2020.

However, with the outbreak and spread of the Covid-19 pandemic in Q1 2020, demand volatility has returned, and the company now forecasts a short period of market tightness as consumers undertake modest resupply. This will be followed by a further slow-down in the sales across all products, including within the newly acquired HCS portfolio, as the pandemic's impacts on global trade play out. As each country and region have responded to the pandemic's health impacts with minimal coordination the company expects economic and financial impacts will continue well into Q2, resulting in a global recession due to at least two consecutive quarters of negative growth.

Economists and experts (in general) are currently grappling with trying to model the financial extent of the short-term health impacts that governments are seeking to mitigate via disparate monetary and fiscal responses. Governments are currently developing policy and assistance packages to restore the longer-term growth. As of the end of Q1 2020 efforts are emerging for some coordination of these stimulus measure at the time this report is being written.

The company's view remains that monetary and fiscal policy can work to stimulate demand side impacts but may not be able to alleviate supply side issues (absence of workers, isolation of key capacity, consumer and business & consumer confidence etc.).

Whilst it is expected that the pandemic will have a material impact on the company's 2020 financial performance, the company believes that it is well positioned to be a key part of the global recovery in industrial production through our competitive advantages of; product offerings, cost of production, scale, quality, recycling capacity, and location.

JACOBS SETTLEMENT

On 10 September, Nui Phao Mining Company ("NPMC") announced it had settled its long running dispute with Jacobs E&C Australia Pty Ltd ("Jacobs") with Jacobs fulfilling its US\$130 million payment obligation in full during that month.

2019 BUSINESS PERFORMANCE

ANNUAL PRODUCTION

Tungsten – Ammonium Paratungstate (APT)

Total production of APT decreased by 1.9% year on year from 6,188 tons WO₃ contained to 6,073 tons. Internal purchases from NPMC increased by 1.6% to 5,682 tons on the back of higher head grades as outlined further below whilst third party purchases increased by 11.6% to 1,046.

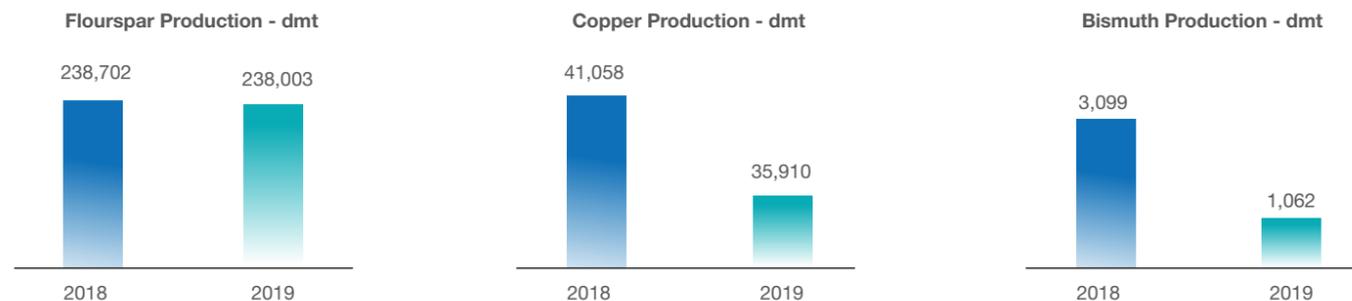


Fluorspar/Copper and Bismuth Cement

Fluorspar production in line with 2018 at 238,003 tons. Lower head grades were offset by a 1% increase in recoveries due to production efficiency improvements.

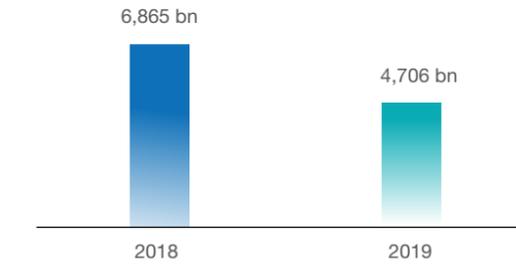
Copper production was significantly lower by 13% at 35,910. Head grades were 16% lower due to the ore being mined but were partially offset by a 3% increase in recoveries, due to production efficiency improvements.

Bismuth cement production decreased by 66% to 1,062 tons. Bismuth production for the year was impacted by lower feed grades and an extended maintenance shutdown.



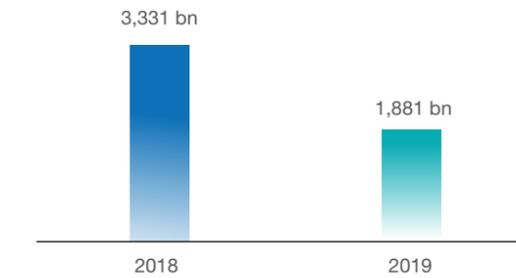
NET REVENUE

Net Revenues were down 31% year on year at VND 4,706 billion and were significantly impacted by lower commodity prices for all the company's products, except Fluorspar. Additionally, MSR expected to receive a copper export permit from the Government of Vietnam which did not eventuate, resulting in a build-up of copper stocks and an immaterial amount of copper revenues being earned for 2019. The company is continuing to work with the Government of Vietnam on the copper issue and is hopeful of a positive outcome in first half 2020 which will enable it to realize value from its current high level of copper stocks and convert to cash.



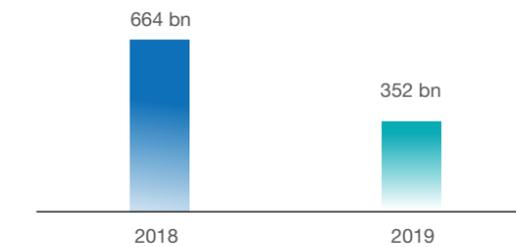
EBITDA

EBITDA reduced by 44% year on year on the back of lower commodity prices and the build-up of copper stocks due to the reasons outlined under Net Revenue. The Company's EBITDA margin, despite the significant reductions in revenues, remained at a healthy 40%, due to innovative approaches by the company relating to cost control and continued focus on operational efficiency. Cost control initiatives delivered approximately 12% reduction or US\$14 million in cash cost savings year on year and recovery improvements were seen for Fluorspar, Copper and Bismuth whilst Tungsten was slightly lower than 2018.



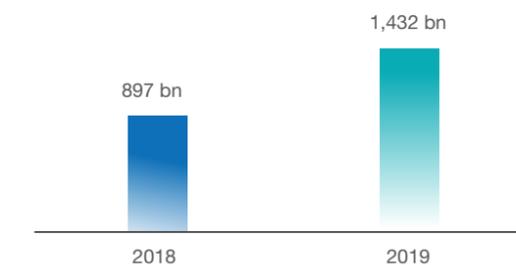
ATTRIBUTABLE NET PROFIT

Masan Resources delivered an attributable net profit of VND352 billion for 2019, a 47% decrease over the same period last year. As compared to 2018, EBITDA reduced by VND1,450 billion, while attributable net profit decreased by VND312 billion. The favorable difference between EBITDA movement and attributable net profit movement is due to the impacts of accounting for the Jacobs settlement.



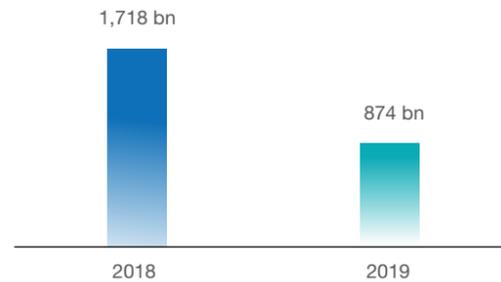
CASH FLOWS FROM OPERATING ACTIVITIES

The Company reported cash flows from operating activities of VND 1,432 billion, an increase of VND 535 billion year on year. Despite the reduction in EBITDA and higher inventory balances due to the increase in copper stocks, cashflow from operations improved over 2018 due to a reduction in accounts receivables balances and increase in payables balances. During 2020, MSR remains focused on reducing inventory balances and converting these to cash by receipt of the copper export permit from the Government of Vietnam and optimization of Tungsten inventories following the HC Starck acquisition.



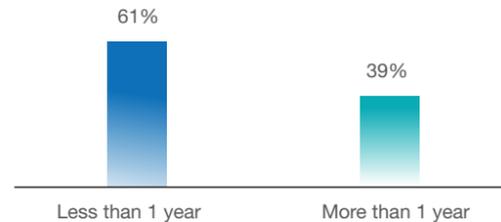
CASH FLOWS FROM INVESTING ACTIVITIES

In 2019 the company utilized cash flows totaling VND 874 billion for investing activities. Adjusted for long-term deposits to banks and interest earned from such deposits, the net spending on fixed assets totaled VND 897 billion (2017 VND 1,772 billion), a VND 875 billion decrease year on year. Capital expenditure in 2018 included VND 696 billion for the HC Starck JV purchase. Other capital expenditure was for ongoing land compensation, expansionary capital projects focused on improving efficiencies and plant performance and sustaining capital projects primarily related to the tailing facility. In 2020, capital expenditure is expected to increase as the company looks acquire the remaining HC Starck tungsten business, commence constructing the copper and gold smelter whilst sustaining capital and land compensation activities will be broadly in line with 2019, however MSR will remain vigilant and modify the capital program accordingly in line with any potential impacts of the COVID-19 pandemic throughout the remainder of 2020.



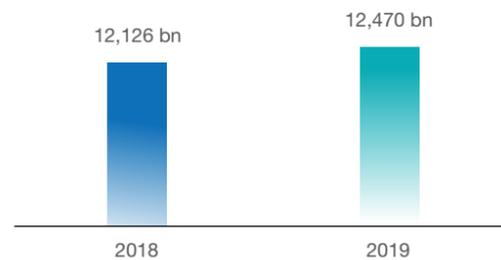
DEBT MATURITY

Of the Company’s total debt obligations, 61% is maturing within 1 year. The Debt/EBITDA ratio increased from 3.5x in 2018 to 6.8x in 2019, the increase in 2019 was mainly due to the reduction in EBITDA for the year. In the short term the Company has plans in place to refinance a portion of the bonds due this year as well as pay down some of the current total debt. In the medium term the Company is committed to reducing its Debt/EBITDA ratio to below 3x.



NET ASSETS & OWNER’S EQUITY

The net assets/owner’s equity increased 3% year on year to VND 12,470 billion in 2019 from VND 12,126 billion in 2018. Increases in assets were primarily noted for cash, inventory and VAT. These increases were partially offset by reductions in fixed assets and an overall increase in borrowings. The balance sheet focus for 2020 will be to improve the working capital position of the company and refinance existing bonds as required.



MANAGEMENT TEAM ASSESSMENT REPORT

Dear Shareholders,
 2019 is recognized as a year of many difficulties and challenges, greatly affecting our business. In 2019 Net Revenues from operations of VND 4,706 billion were down 31% compared to our net revenue in 2018. The revenues were down related the down average metal price of tungsten, bismuth, fluorspar, copper in the global market as well as the reduced volume of copper concentrate with limited domestic demand and long-term rectification of bismuth rectification. But Masan Resources remains steadfast in its transformation from a mining and mineral processing company turning into an important business in the global materials industry by signing an agreement to purchase the tungsten business of H.C. Starck Group GmbH is a leading manufacture of high-tech tungsten metal powders and carbides in the world, this transaction is an important step for MSR becoming the dominant supplier of Global High-Tech Material and supplying to global network of customers.

We highlighted the significant outcomes delivered in 2019:

PRODUCTION

Total throughput in 2019 was 3,787,978 tonnes, slightly down on 2018 total throughput of 3,804,390 tonnes. The reduced throughput was due to a combination of lower throughput per hour, 456 tonnes per operating hour, compared to 460 per operating hour in 2018. However, Plant availability at 94.8% in 2019 was higher than year target of 93.7% as well as 2018 of 94.6%. In 2019, We consolidated the production achievements in maintaining similar tungsten and acid grade fluorspar production and recoveries, with an increase in copper recovery by 3.3% from 2018. The bismuth flotation and cementation circuits were taken offline and intensive maintenance program to bring it up to mechanical standard to ensure metallurgical performance when brought back online in 2020.

WORKFORCE

At the end of 2019 the total number of direct employees was 1,403 with foreign experts accounting for 6% of our workforce, decreased 1% compare to 2018 of 7%. Our Contractors employ 928 personnel as always, we focus on developing employees through internal and outsourcing training course to improve competency and needed skills, by the end of 2019, a total of 72,539 training man hours for 23,473 attendees. In 2020, we will enhance the leadership capacity, develop future leaders through rolling-out the talent management program called “SEAL”(Strategic, Entrepreneur, Business Acumen and Leadership) as well as continue conducting the need-based training based on the competency frameworks and maximize the ability of the internal trainers.

SAFETY

At MSR, our approach to occupational safety is of paramount importance and can be clearly measured through our low records of occupational injuries and incidents that occurred at our mine site. Our safety maturity is further strengthened through our robust safety programs that are mandatory for all employees and contractors. In 2019, the Total Recordable Injuries Frequency Rate and Lost Time Injury Frequency Rate, per million man-hours worked was 0.97 (2018: 2.14) and 0.00 (2018: 0.31) respectively. At MSR, we are

committed to safe operations, our people; both contractors and employees, are foremost of importance for their safety and as such undergoing mandatory safety inductions on commencement of work activities as well as regular safety inductions through the course of employment.

ENVIRONMENT

The year of 2019 continues to mark the relentless efforts of MSR in environmental protection works by no environmental violation record in 3 inspection spells by the delegation of MONRE – fully compliant with the regulation. Granted the certificate of NPMC’s environmental protection works, an additional environmental rehabilitation plan and new waste-water discharge license from MONRE. In 2019, we rehabilitated an area of 12.7 ha at the slopes of Waste dumps, buffer zones and other disturbed areas in the progress of mining and operations by using a variety of plants and materials to increase the efficiency of environmental rehabilitation and restoration works. A total of 34,112 Acacia trees were planted, 1,610 kg of grass seeds sowed, and 7,385 kg of fertilizer used. Since the commencement of the project to the end of 2019, we rehabilitated a total of 60.5ha, making an important contribution to environmental protection works in the mining activities. These keep ongoing to create a “showcase model” in environmental protection for partners to study and learn in the practices of sustainable mining in Viet Nam.

COLLABORATION WITH COMMUNITY

In 2019, MSR has continued and maintained our range of community engagement activities including community development program and economical restoration – ongoing commitment with MSR’s involvement pledge to the community, MSR contributed 3.9 billion VND into 12 community development projects which directly and indirectly impact approximately 2,000 households, 5,000 people through various interventions such as micro-livelihood models in 2019. The year 2019 marked a crucial step in the program of public consultation and information disclosure with 1,079 visitors from 104 delegations were local community and stakeholder engagement and 2,295 information items published with 190 content. These are our innovative communication tactics to bring positive image of MSR closely and transparency to all every parties. We believe that such community development initiatives can ultimately integrate the role of mining into the broader context of sustainable development and national plans to achieve the Sustainable Development Goals (SDGs).

FINANCE

Despite revenues reducing by 31% or VND 2,159 billion to VND4,706 billion as compared to 2018, due to lower commodity prices and a build-up of copper stocks whilst the company awaits an export permit from the Government of Vietnam, attributable net profit was positively impacted by the Jacobs settlement which enabled MSR to book a full year profit of VND 352 billion, a decrease of 47% or VND 312 billion over 2018. For 2020 MSR is focused on refinancing a portion of its bonds that become due as well as reducing inventory to realize cash and improve profitability which will be further enhanced through the acquisition of the H.C. Starck business.

BOARD OF DIRECTORS ASSESSMENT REPORT

Dear Stakeholders,

The Board of Directors (“the BOD”) of Masan Resources is honored to submit the BOD’s performance assessment report of the Company in 2019.

1. BOD’S ASSESSMENT OF THE COMPANY PERFORMANCE

2019 is a challenging year, significantly affecting our business operations, however, Masan Resources is still well positioned to keep going in the ongoing transformation from a mining and processing company to a significant influencer in the global materials industry.

In September 2019, MSR, through its wholly owned subsidiary – MTC, entered into an agreement to purchase the tungsten business of H.C.Starck Group GmbH – a leading manufacturer of high-tech tungsten metal powder and carbides (midstream tungsten products) in the world. HCS has production hubs in Europe, North America, and China serving customers across the globe. A highly qualified and professional team of experts in R&D, application engineering, coupled with modern automated manufacturing processes ensure its customers benefit from the highest and consistent quality products. This transaction is a strategic step in executing MSR’s vision to become a leading vertically integrated high-tech industrial material platform in the world. This will enable MSR to generate strong and consistent cash flows across price cycles and expand MSR’s addressable market by 3.5 times from US\$1.3 billion to US\$4.6 billion. But more importantly, enhance Vietnam’s competitive edge in global tungsten market by owning a cutting-edge R&D and technology platform and provide Vietnamese workforce an opportunity to develop engineering skills in the high-tech manufacturing space, as part of the globalization of MSR’s business.

In Vietnam, after successful acquisition of H.C. Starck GmbH’s 49% stake in NHTCM and changing the name of NHTCM to Masan Tungsten Limited Liability Company (“MTC”), we have invested, upgraded and improved equipment, machines and technology to increase the capacity of the MTC’s processing plant up 9,345 tons of tungsten-contained products and increase the total capital investment up VND 2,174,900,000,000. In December 2019, the Ministry of Science and Technology issued High-Tech Enterprise Certificate to MTC.

Although facing with difficulties and challenges affecting our revenues, MSR continues making a significant contribution to the State budget. In 2019, total revenue of NPMC is VND 4,139,928,000,000 and contributed VND 1,170,828,000,000 to Thai Nguyen province’s budget. Total revenue of MTC is VND 2,915,647,000,000 and contributed VND 68,211,000,000 to Thai Nguyen province’s budget (still being granted Corporate income tax rebate).

The Company continues applying the world-class standards and

practices in all areas related to the community, environment and safety. For environment, 2019 continues to mark the relentless efforts of MSR in environment protection works. These activities keep ongoing to create a “showcase model” in environmental protection for partners to study and learn in the practices of sustainable mining in Viet Nam.

Our significant contributions to the community development initiatives and Corporate Social Responsibility in Thai Nguyen province have been recognized and highly appreciated in the areas such as sustainable agriculture, household economic development, rural sanitation & water, health and child welfare.

The BOD has accomplished its duties in reviewing and approving the resolutions on the operation of the Company and its subsidiaries. In 2019, no members of the BOD received any remuneration for their duties as BOD’s members, nor have they incurred any expenses.

2. BOD’S ASSESSMENT OF THE COMPANY MANAGEMENT TEAM PERFORMANCE

The Management Team continues to manage the Company in a manner deserving the BOD’s and shareholders on-going trust and support. The Chief Executive Officer and other managers fulfilled their duties and functions in 2019, and properly implemented all resolutions from the General Meetings of Shareholders.

The appropriate sub-committees that were established in 2016, including the Sustainability Committee and the Risk Committee, have continued to fulfill their obligations in advising and assisting the BOD on matters having remarkable impacts on the Company’s operation and reputation.

3. BOD PLANS AND DIRECTIONS

Strategically, Masan Resources will continue to explore opportunities and aims to become a further integrated downstream tungsten business of a global scale.

The company aims at supplying Vietnam’s strategic resources for high-tech global material sectors by producing superior quality industrial chemical products from tungsten, fluorspar and bismuth that are then sold via global distribution networks to our customers across key industries that are focused towards strategic and high-tech customers. In addition, the Company promotes the circular economy through the adoption of “Reduce, Reuse & Recycle” philosophy; safeguard the ecosystems of our people, our environment, our stakeholders; and ensure superior financial results on a long-term sustainable basis.

Given the foregoing, the BOD fully supports the Management Team’s efforts to continue to grow the company and deliver on the newly announced Vision.

SUPERVISORY BOARD’S REVIEW OF THE COMPANY’S OPERATIONS

ON THE ACCOUNTING AND FINANCIAL OPERATIONS OF THE COMPANY

The Supervisory Board confirms that the financial figures presented in the report of the Board of Directors submitted to the 2020 Annual General Meetings of Shareholders are a fair reflection of the Company’s and its subsidiaries’ current financial situation.

Key figures of the financial situation as of December 31, 2019:

Part 1: Balance Sheet

	Group		Company	
	31/12/2019	1/1/2019	31/12/2019	1/1/2019
	VND’000	VND’000	VND’000	VND’000
ASSETS				
Current assets	7,581,595,985	4,333,718,245	711,706,777	47,959,283
Cash and cash equivalents	1,723,204,606	467,220,260	4,273,418	3,288,566
Short-term financial investments	5,900,000	-	-	-
Accounts receivable – short-term	1,735,574,636	1,612,852,955	707,433,359	44,670,717
Inventories	3,139,024,753	1,646,014,138	-	-
Other current assets	977,891,990	607,630,892	-	-
Long-term assets	22,193,123,896	23,615,407,322	12,454,770,460	12,495,844,635
Accounts receivable - long-term	1,303,868,898	1,335,307,630	3,000,000,000	7,355,509,062
Fixed assets	16,568,909,156	18,267,296,514	-	-
Long-term work in progress	1,694,487,259	1,429,178,901	-	-
Long-term financial investments	0	5,900,000	9,454,770,460	5,140,335,573
Other long-term assets	2,625,858,583	2,577,724,277	-	-
TOTAL ASSETS	29,774,719,881	27,949,125,567	13,166,477,237	12,543,803,918
RESOURCES				
LIABILITIES	17,304,897,615	15,823,171,322	3,068,983,519	3,098,253,712
Current liabilities	11,219,362,163	4,101,944,806	68,983,519	57,179,537
Long-term liabilities	6,085,535,452	11,721,226,516	3,000,000,000	3,041,074,175
EQUITY	12,469,822,266	12,125,954,245	10,097,493,718	9,445,550,206
TOTAL RESOURCES	29,774,719,881	27,949,125,567	13,166,477,237	12,543,803,918

ON THE COMPANY'S BUSINESS PERFORMANCE

In 2019, the Supervisory Board did not find any abnormal signs in the Company's business operations. All of business activities were conducted in compliance with the Company's Charter, the Law on Enterprises and other, relevant legal regulations.

Business performance results and accounting figures have been carefully checked to ensure the accuracy and legality of accounting books.

The Company fully observed all current legal regulations required for information disclosure to the stock market.

Figures of business results as of December 31, 2019:

Part 2: Income statement

	Group		Company	
	2019 VND'000	2018 VND'000	2019 VND'000	2018 VND'000
Net operating profit	129,214,118	852,068,141	658,803,749	1,747,699
Results of other activities	336,572,225	(23,955,597)	(501,547)	10,000
Profit before tax	465,786,343	828,112,544	658,302,202	1,757,699
Income tax expense – current	138,562,148	35,190,165	6,358,690	-
Income tax benefits – deferred	(25,169,620)	(17,079,300)	-	-
Net profit after tax	352,393,815	810,001,679	651,943,512	1,757,699
Net profit attributable to:				
Equity holders of the Company	352,393,815	663,756,323	651,943,512	1,757,699
Non-controlling interest	-	146,245,356	-	-

ON THE GOVERNANCE AND MANAGEMENT**a. The Board of Directors:**

The Supervisory Board opines that the Board of Directors has fulfilled their management responsibilities in compliance with the Company's Charter, the Resolutions of the General Meetings of Shareholders, the Law on Enterprises and other relevant legal regulations.

The Board of Directors has duly executed all resolutions of the General Meetings of Shareholders in 2019.

The Board of Directors' resolutions were issued in compliance with the legal authority of the Board of Directors and the contents of the resolutions were in compliance with the Company's Charter, the resolutions of the General Meetings of Shareholders, the Law on Enterprises and other relevant legal regulations.

b. The Management Team

The Supervisory Board opines that the Management Team has executed the Company's business operations efficiently and in compliance with the Board of Directors' resolutions.

CONCLUSIONS

The Company's operations during the 2019 were in compliance with the Company's Charter, the Law on Enterprises and other, relevant legal regulations, and were based on the Resolutions of the General Meetings of Shareholders and of the Board of Directors.

CORPORATE GOVERNANCE REPORT

ACTIVITIES OF THE GENERAL MEETING OF SHAREHOLDERS

Information on meetings and resolutions of the General Meeting of Shareholders (including the resolutions of the General Meeting of Shareholders adopted in the form of written comments):

Resolution No. 75/2019/NQ-ĐHĐCĐ

Date 19/4/2019

Content

- (i) Approve the Board of Directors' assessment report for 2018;
- (ii) Approve the Supervisory Board's assessment report for 2018;
- (iii) Approve the 2018 Financial Statements of the Company as audited by KPMG Company Limited;
- (iv) Approve the 2019 business plan of the Company on a consolidated basis;
- (v) Approve the 2018 dividend distribution plan of the Company;
- (vi) Approve the plan for issuance of shares for dividend payment;
- (vii) Approve the selection of KPMG Company Limited as the auditing firm of the Company in 2019;
- (viii) Approve the remuneration packages for the members of the Board of Directors and the members of the Supervisory Board in 2019 being VND 0;
- (ix) Approve the transactions between the Company and its related parties;
- (x) Approve the Company's Internal Regulations on Corporate Governance;
- (xi) Approve the additional listing at HNX regarding the ordinary shares converted form preferential shares as per Resolution of the General Meeting of Shareholders No. 138/2018/NQ-ĐHĐCĐ;
- (xii) Approve the resignation of Mr. Dominic John Heaton from the BOD of the Company for 2016-2021 term, effectively from July 26, 2018;
- (xiii) Approve the resignation of Mr. Chetan Prakash Baxi from the BOD of the Company for 2016-2021 term, effectively from April 16, 2019;
- (xiv) Approve the election of Mr. Craig Richard Bradshaw and Mr. Danny Le to the BOD of the Company for the remainder of the 2016-2021 term.

BOARD OF DIRECTORS

Information about the members of the Board of Directors:

No.	BOD's member	Position	Day becoming/no longer member of the Board of Directors	Number of attendance	Percentage	Reasons for absence
1	Mr. Chetan Prakash Baxi	Chairman of the BOD	20/12/2013 - 16/04/2019	2/9	22%	Resigned from the BOD as from 16/04/2019
2	Mr. Danny Le	Chairman of the BOD	19/04/2019	6/9	67%	Selected to the BOD as from 19/04/2019
3	Mr. Nguyen Thieu Nam	Acting Chairman of the BOD (from 16/04/2019 to 19/04/2019)	18/02/2013	9/9	100%	
4	Dr. Nguyen Dang Quang*	Member of the BOD	18/02/2013 - 13/12/2019	9/9	100%	
5	Mr. Nguyen Van Thang	Member of the BOD	22/04/2016	9/9	100%	
6	Mr. Craig Richard Bradshaw	Member of the BOD	19/04/2019	6/9	67%	Selected to the BOD as from 19/04/2019

* Dr. Nguyen Dang Quang submitted his resignation to the Board of Directors on December 13, 2019

Supervision by the BOD over the Management Team

- At the meetings of the BOD, the CEO reported the operations of the Company and the key operations of the Company's subsidiaries;
- Supervising and directing the implementation of the investment plans of the Company and its subsidiaries;
- Implementing the tasks as delegated under the resolutions of the BOD.

Activities of the Board of Directors' committees

a. Activities of the Sustainable Committee

- Review and monitor the performance of the Company as it affects matters related to sustainability, the environment, communities and other key stakeholders;
- Review and provide guidance to management on sustainability issues and impacts and the integration of sustainability into Company's business, including innovation, manufacturing and sourcing and operations;
- Review the activities of the Company's community impact initiatives;
- Review and provide recommendations to management on reporting to shareholders and other communities regarding corporate responsibility activities;
- Review and provide guidance to management, and report to the Board regarding the involvement of signification corporate responsibility issues in major business decisions, in order to protect the Company's valuable goodwill, and human and intellectual capital;
- Review and provide recommendations to the Board on any shareholder proposal that relates to the matters overseen by the committee;
- Oversee the management of risks related to sustainability, the environment and the Company's interactions with communities,

b. Activities of the Risk Committee

- Review and discuss with management and the Company's independent auditor the Company's quarterly financial statements;
- Assess compliance with the Company's code of business practices and its code of conduct, and consider and (if appropriate) approve any waiver provided in the codes;
- Review periodically with management and the legal counsel the Company's compliance with laws and regulations, including corporate securities trading policies, legal matters, litigation or any other contingency that could have a significant impact on the Company's financial statements.
- Discuss with the Management Team the Company's policies regarding risk assessment and risk management, and the steps the Management Team has undertaken to monitor and control them.

Resolutions of the Board of Directors

No.	Resolution No.	Date	Content
1	33/2019/NQ-HĐQT	07/03/2019	Approve the appointment of Mr. Stuart James Wells as the Chief Financial Officer of the Company, effectively as from March 7, 2019.
2	61/2019/NQ-HĐQT	09/04/2019	Approve (i) convention of the 2019 Annual General Meeting of shareholders; and (ii) matters to be submitted for approval at the 2019 Annual General Meeting of shareholders.
3	70/2019/NQ-HĐQT	16/04/2019	Approve (i) the election of Mr. Nguyen Thieu Nam as the Acting Chairman of the BOD due to Mr. Chetan Prakash Baxi's resignation, effectively as from April 16, 2019; and (ii) designation of Mr. Nguyen Thieu Nam to complete the preparation work and to chair 2019 Annual General Meeting of Shareholders of the Company.
4	77/2019/NQ-HĐQT	19/04/2019	Approve (i) removal of Mr. Nguyen Thieu Nam from the position of Acting Chairman of the BOD, effectively as from April 19, 2019; (ii) appointment of Mr. Danny Le to the position of Chairman of the BOD, effectively as from April 19, 2019; (iii) appointment of Mr. Nguyen Thieu Nam to the position of First Vice Chairman of the BOD, effectively as from April 19, 2019; and (iv) appointment of Mr. Tran Quang Chuc as the Company's Secretary cum the Peron in charge of Corporate Governance, effectively as from April 19, 2019.
5	94/2019/NQ-HĐQT	10/05/2019	Approve (i) the issuance plan of bonds with the total value of VND 500 billion by the Company; (ii) security for repayment obligation of the Company in relation to the bonds, including a guarantee by NPMC, a number of ordinary MSR shares owned by MH, and other assets of the Company or of the other third party(ies) to be decided by the authorized representatives; and (iii) use of the proceeds from issuance of the bonds to cooperate with NPMC in accordance with the Business Cooperation Agreement dated September 21, 2018 between the Company and NPMC.
6	107/2019/NQ-HĐQT	28/05/2019	Approve intercompany transactions between the Company and its related parties.
7	116/2019/NQ-HĐQT	12/06/2019	Approve (i) additional capital contribution by the Company to MRTN to increase the charter capital of MRTN; and (ii) amendment to Article 7.2 [Charter Capital] in Charter of MRTN.
8	243/2019/NQ-HĐQT	16/10/2019	Approve (i) amendments to Charter of MRTN and Charter of TNTI, (ii) other matters related to MRTN and TNTI.
9	244/2019/NQ-HĐQT	16/10/2019	Approve the distribution of undistributed profit after tax of TNTI to MRTN and the same of MRTN to MSR.
10	245/2019/NQ-HĐQT	16/10/2019	Approve the implementation of the plan for issuance of shares for dividend payment for 2018 as approved in AGM Resolution No.75/2019/NQ-DHĐCĐ.
11	280/2019/NQ-HĐQT	22/11/2019	Approve (i) result of share issuance for dividend payment for 2018; and (ii) the depository registration of the actually issued shares at VSD and the additional registration of trading of the same on HNX.
12	281/2019/NQ-HĐQT	22/11/2019	Approve (i) increase of the Company from VND 8,993,091,220,000 to VND 9,892,398,780,000 due to share issuance for dividend payment to shareholders; and (ii) amendment to Article 5.1 of the Company's Charter about charter capital.

Supervisory Board

Information about members of Supervisory Board

No.	Members of Supervisory Board	Position	Day becoming/no longer member of the Supervisory Board	Number of attendance	Percentage	Reasons for absence
1	Ms. Doan Thi My Duyen	Head of Supervisory Board	30/09/2013	2/2	100%	
2	Mr. Nguyen Quynh Lam	Member of Supervisory Board	22/04/2016	2/2	100%	
3	Ms. Pham Quynh Nga	Member of Supervisory Board	20/04/2018	2/2	100%	

1. Surveillance activities of the Supervisory Board toward the Board of Directors, Management Team and shareholders:
(See Report of the Board form pages 65 to 67)

2. The coordination among the Supervisory Board with the Board of Directors, Management Team and other managers:

- Attending and providing comments at meetings of the BOD;
- Supervising the implementation of the resolutions of the General Meeting of Shareholders and the BOD passed in 2019;
- Supervising compliance with regulations of the Law on Enterprises, the Law on Securities, the Company Charter, the resolutions of the General Meeting of Shareholders regarding the administration and management of the Company's business activities;
- Reviewing financial statements of 2019.

3. Other activities of the Supervisory Board (if any): None

Training on corporate governance

None

Transactions of affiliated person of the company with the company

Transactions between the company and the affiliated persons or between the company and major shareholders, internal persons and related persons of internal persons:

- Increase of money amount for business cooperation under the Business Cooperation Agreement dated September 21, 2018 between the Company and NPMC;
- Additional capital contribution to MRTN to increase charter capital of MRTN.

Transaction between internal persons of listed company and company's subsidiaries, or the company in which listed company takes controlling power: None.

Transactions between the Company and other objects

1.1. Transactions between the Company and companies that members of the Board of Directors, members of the Supervisory Board, or the CEO of the Company is or was a founding member, members of the Board of Directors, or the CEO of those companies (the "Related persons") in the last three (03) years (as at the time of reporting).

Year	Related person (having transactions with the Company)	Relationship with the Company	Description of transaction
2018	Nui Phao Mining Company Ltd	BOD member of the Company is also an MC member of the related person	Business cooperation agreement
2018	Masan Tungsten Limited Liability Company	BOD member of the Company is also an MC member of the related person	Business cooperation agreement

1.2. Transactions between the Company and the company that the related persons of members of Board of Directors, members of the Supervisory Board, Director (CEO) as a member of Board of Directors, Director (CEO): None.

1.3. Other transactions of the Company (if any) that may be beneficial material or immaterial for members of the Board of Directors, members of the Supervisory Board, Director (CEO): None.

Transactions of internal persons and related person of internal person

Transactions of internal persons and affiliated persons on shares of the listed company: None

Other significant issue: None

MSR RISK MANAGEMENT

MSR seeks to protect its many shareholders through the adoption of prudent risk management practices across all levels of the businesses that it operates.

Active identification and management of both risk and opportunity are central to achieving our strategy and creating long-term value.

At MSR we seek to embed risk management into the critical business activities, functions, processes and systems of our assets through the following mechanisms:

- Risk assessments - we regularly identify and assess known, new and emerging risks.
- Risk controls - we put controls in place over material risks and periodically assess the effectiveness of those controls. We also ensure that resources are formally allocated to enable these controls.
- Risk materiality - we assess the materiality of a risk based on the degree of financial and non-financial impacts, including but not limited to community, health, environment, reputational and legal impacts.

We apply established processes when commencing new activities or make changes to established practices including risk assessments and supporting risk management plans to ensure potential business conduct. Issues related to corruption, statutory compliances, reputational risk, and legal exposures are diligently reported and actioned on to ensure business continuity and growth in line with the long term vision of the organization.

For information on our principal risks, please refer below.

PRINCIPAL RISKS

Robust risk assessment statement

The MSR Board has carried out a robust assessment of MSR's principal risks, including those that could threaten the business model, future performance, reputation, solvency or liquidity over the next 3 year period.

The Directors believe a three-year period is the appropriate period considering the following reasons;

MSR has an annual budget, a three-year plan and a longer-term life-

of-asset outlook. It is MSR's public view that while commodity prices will continue to remain volatile, we are optimistic on prices in the short-term. Price and exchange rate volatility results in further variability in plans and budgets. It is currently considered that a three-year period provides the appropriate balance between long-term and short-term performance drivers.

As part of the considerations the assessment considers among other things, commodity price forecasts, sensitivities; the latest funding and liquidity update; the long-dated maturity profile of MSR's debt and the debt maturing in the next 12 months; the Group-level risk profile and the mitigating actions available should particular risks materialise; the regular Board strategy and discussions which address the range of outcomes under the capital expenditure framework; and the reserve life of MSR's minerals assets.

In making this year's statement, the Directors considered the acquisition of H.C Starck, and the unfolding circumstances relating to the global impacts of covid-19. The Directors have also made certain assumptions regarding the alignment of production, capital expenditure and operating expenditure within the three-year plan forecasts and the alignment of prices with the cyclical low-price case used for balance sheet sensitivities. These assumptions will be tested once change of control is exercised.

Taking account of these matters, and MSR's current position and principal risks, the Directors have a reasonable expectation that MSR will be able to continue in operation and meet its liabilities as they fall due.

RISK FACTORS

External risks

Fluctuations in commodity prices (including sustained price shifts) and impacts of ongoing global economic volatility may negatively affect our results, including cash flows and asset values.

The prices we obtain for our minerals, chemicals, powders and carbides are influenced or linked to global commodity markets which have historically been subject to significant volatility. Our usual policy is to sell our products in a mix of long-term and short-term contracts linked to the prevailing market prices. The diversity provided by our relatively broad portfolio of commodities does not necessarily insulate

MSR from the vagaries of price changes. Fluctuations in commodity prices can occur due to price shifts reflecting underlying global economic and geopolitical factors, industry demand, increased supply due to the development of new productive resources or increased production from existing resources, technological change, product substitution and national tariffs. We are particularly exposed to price movements in minerals. For example, a US\$10 per mtu decline in the average APT notation would have an estimated impact on FY2020 profit after taxation of US\$6 million. Volatility in global economic growth, particularly due to the covid-19 pandemic, escalating trade tensions resulting in redirection of trade flows has the potential to adversely affect future demand and prices for our commodities and industrial products. On-going geopolitical uncertainty and market based protectionism have the potential to inhibit international trade and weigh on business confidence, which may create the risk of further constraints on our ability to trade in certain markets and has the potential to increase price volatility. The impact of sustained price shifts and short-term price volatility, including the effects of the sustained global monetary stimulus by central banks, the continued uncertainty surrounding the details of the United Kingdom's exit from the European Union, creates the risk that our financial and operating results, including cash flows and asset values, will be materially and adversely affected by short-term or long-term volatility in the prevailing prices of our products.

Our financial results may be negatively affected by exchange rate fluctuations.

The geographic diversity of the countries in which our assets are located means that our assets, earnings and cash flows are influenced by a variety of currencies. Fluctuations in the exchange rates of those currencies may have a significant impact on our financial results. The US dollar, Euro and Chinese Yuan are the currencies in which majority of our sales would be denominated, while the currency in which we present our financial performance is Vietnamese dong. Operating costs are influenced by the currencies of those countries where our assets and facilities are located and also by those currencies in which the costs of labour, imported equipment and services are determined.

Results impacted by slowing Chinese demand.

The Chinese market has been driving global materials demand and pricing over the past decade. A continued slowdown in China's economic growth and demand could result in further redirection of trade flows resulting in lower prices for our products and materially impact our cash flows and overall results.

Business framework impacted by political, judicial, regulatory and climate change, or alleged compliance issues within the countries in which we operate or assets in which we have an interest could have a negative impact on our business.

The degree to which political, judicial and commercial stability exists in the locations in which we are operating around the globe. Risks in the locations in which we have operating assets could include terrorism, civil unrest, judicial activism, regulatory investigation or inquiry, nationalisation, protectionism, renegotiation or nullification of existing contracts, leases, permits or other agreements, imposts, controls or prohibitions on the production or use of certain products, restrictions on repatriation of earnings or capital and changes in laws and policy, as well as other unforeseeable risks. Risks relating to bribery and corruption, including possible delays or disruption resulting from a refusal to make so-called facilitation payments, may be prevalent in some of the countries where our assets are located. If any of our operating assets are affected by one or more of these risks, it could have a material adverse effect on MSR's overall operating results, financial condition and prospects.

Our operating assets are based on material long-term investments that are dependent on long-term fiscal stability and could be adversely affected by changes in fiscal legislation, changes in interpretation of fiscal legislation, periodic challenges and disagreements with tax authorities and legal proceedings relating to fiscal matters. The natural resources industry continues to be regarded as a source of tax revenue and can also be adversely affected by broader fiscal measures applying to businesses generally. MSR is currently involved in a number of uncertain tax and royalty matters. For more information, refer to note 30. Income tax page 147 in section "Notes to the financial statement" .

Our business is affected by new and evolving government regulations and international standards, such as controls on imports, exports, prices and greenhouse gas emissions. The nature of the industries in which we operate means many of our activities are highly regulated by laws relating to community, health, environment and safety impacts. Increasing requirements relating to regulatory, community, health, environment and safety approvals can potentially result in significant delays or interruptions and may adversely affect the economics of new development, the expansion of existing assets and operations and the performance of our operating assets. As regulatory standards and expectations are constantly developing, we may be exposed to increased regulation and compliance costs to meet new operating and reporting standards, as well as unforeseen closure and site rehabilitation expenses.

Infrastructure, such as rail, ports, power and water, is critical to our business operations. The impact of climate change may increase competition for, and the regulation of, limited resources, such as power and water. These factors could materially and adversely affect the expansion of our business and ability of our assets to operate efficiently.

New or evolving regulations and international standards can be difficult to predict, difficult to influence, and complex to understand. Potential compliance costs, litigation expenses, regulatory delays, rehabilitation expenses and operational impacts and costs arising from government action, court decisions, regulatory change and evolving standards could materially and adversely affect MSR's future results, prospects and our financial condition.

We now conduct our business in a global environment that encompasses multiple jurisdictions and complex regulatory frameworks. Our governance and compliance processes (which include the review of internal controls over financial reporting and specific internal controls in relation to competition, data protection and privacy, offers of anything of value to government officials and representatives of state-owned enterprises and disclosure of state or commercial secrets) may not operate to identify financial misstatements or prevent potential breaches of law, or of accounting or governance practice. Our Code of Conduct, together with our policies such as the anti-corruption, and competition policies, may not prevent instances of fraudulent behavior and dishonesty nor guarantee compliance with legal or regulatory requirements. This may lead to regulatory fines, loss of profits, litigation, allegations or investigations by regulatory authorities, loss of operating licenses and/or reputational damage.

Business risks

Failure to discover or acquire new resources, maintain reserves or develop new assets could negatively affect our future results and financial condition.

The demand for our products and production from our assets results in existing reserves being depleted over time. As our revenues and profits are derived in part from our minerals, our future results and financial condition are directly related to the success of our exploration and acquisition efforts, and our ability to generate reserves to meet our future production requirements at a competitive cost. Exploration activity occurs adjacent to our established asset. These activities may increase land tenure, infrastructure and related political risks. A failure in our ability to discover or acquire new resources, maintain reserves

or develop new assets or operations in sufficient quantities to maintain or grow the current level of our reserves could negatively affect our future results, financial condition and prospects. Deterioration in commodities pricing may make some existing reserves uneconomic. Our actual exploration drilling activities and future drilling budget will depend on our resource and reserve inventory size and quality, drilling results, commodity prices, drilling and production costs, lease expirations, land access, roads and other infrastructure constraints, regulatory approvals and other factors.

There are numerous uncertainties inherent in estimating mineral reserves. Geological assumptions about our mineralization that are valid at the time of estimation may change significantly when new information becomes available. Estimates of reserves that will be recovered, or the cost at which we anticipate reserves will be recovered, are based on uncertain assumptions. The uncertain global financial outlook may affect economic assumptions related to reserve recovery and may require reserve restatements. Changes to reserve estimates could affect our asset carrying values and may also negatively impact our future financial condition and results.

Potential changes to our portfolio of assets through merger, acquisition and divestment activity may have a material adverse effect on our future results and financial condition.

There are a number of potential risks associated with acquisitions (or divestments). These include:

- loss of value from a poor investment decision or from a missed investment opportunity;
- adverse market reaction to the basis/timing/terms on which changes are made;
- the imposition of adverse regulatory conditions and obligations;
- commercial objectives not being achieved as expected;
- unforeseen liabilities arising from changes to the portfolio;
- sales revenues and operational performance not meeting our expectations;
- anticipated synergies or cost savings being delayed or not being achieved;
- inability to retain key staff and transaction-related costs being more than anticipated.

These factors are material considerations given our first major offshore transaction in acquiring HCS and could materially and adversely affect our financial condition, reputation, and future results.

Increased costs and schedule delays may adversely affect our capital development projects.

Although we dedicate significant time, effort and resources to our project planning, approval and review processes, some of our development projects are highly complex and rely on factors that are outside our control, which may cause us to underestimate the cost or time required to complete a project. For instance, incidents or unexpected conditions encountered during development projects may cause setbacks or cost overruns, required licenses, permits or authorisations to build a project may be unobtainable at anticipated costs, or may be obtained only after significant delay and market conditions may change, thereby making a project less profitable than initially projected.

In addition, we may fail to develop and manage projects as effectively as we anticipate due to both foreseeable and unforeseen challenges that may emerge.

Any of these may result in increased capital costs and schedule delays at our development projects and materially and adversely affect anticipated financial returns.

Financial risks

If our liquidity, or cash flow deteriorate significantly, it may adversely affect our ability to fund our major capital programs.

We seek to maintain a strong balance sheet. However, fluctuations in commodity prices and ongoing global economic volatility could materially and adversely affect our future cash flows and ability to access capital from financial markets at acceptable pricing. If our key financial ratios and credit ratings are not maintained, our liquidity and cash reserves, interest rate costs on borrowed debt, future access to financial capital markets and the ability to fund current and future major capital projects could be adversely affected.

The commercial counterparties with whom we transact may not meet their obligations, which may negatively affect our results.

We contract with many commercial and financial counterparties, including end-customers, suppliers and financial institutions in the context of global financial markets that remain volatile. We maintain a single book approach with commercial counterparties to make sure all credit exposures are quantified and assessed consistently. However, our existing counterparty credit controls may not prevent a material loss due to credit exposure to a major customer segment or financial counterparty. In addition, customers, suppliers or contractors may

fail to perform against existing contracts and obligations and could negatively affect our financial condition and results of assets.

Operational risks

Unexpected natural and operational catastrophes may adversely impact our assets, functions or people.

We now have production assets in several geographic locations. Our operational processes may be subject to operational accidents, such as fires, gas leaks, road and vehicle incidents, port and shipping incidents, aircraft incidents, open-cut pit wall or tailings/waste storage facility failures, loss of power supply, environmental pollution, mechanical critical equipment failures, and cyber or conventional security attacks on MSR's infrastructure. If an operational crisis occurs, the failure to provide adequate communications response to our external stakeholders could result in Group-wide reputational damage.

Our minerals asset may also be subject to unexpected natural catastrophes, such as earthquakes, floods and typhoons.

We operate corporate offices and operations globally. A serious natural, civil unrest, terror or criminal event in any of these locations could have an impact on the services provided to the Group and on our people and the local community.

Based on our risk management and the limited value of external insurance in the natural resource sector, our risk financing (insurance) approach is to purchase external insurance for certain risks, including property damage and business interruption, sabotage and terrorism, marine cargo, construction, primary public liability and employee health benefits. Existing business continuity plans may not provide protection for all the costs that arise from such events, including clean-up costs, litigation and other claims. The impact of these events could lead to disruptions in production, increased costs and loss of facilities. Where external insurance cover is purchased, third party claims arising from these events may exceed the limit of liability of the insurance policies we have in place. Additionally, any uninsured or underinsured losses could have a material adverse effect on our financial position or results of assets.

Information technology and operational technology services are subject to cybersecurity risks and threats that may materially affect our business and reputation.

Our strategy of owning and operating, long-life and low-cost assets is underpinned by our ability to become fully integrated and highly

automated, from resource to end-use customer and the market. Our business and operational processes are heavily dependent on traditional and emerging technologies to improve safety, lower cost and unlock value.

Increases in the frequency and magnitude of global cyber events pose potential increased risk of sensitive information being compromised, as well as unplanned and/or extended outages to our systems and networks. These events may include (but are not limited to) exploitation of system vulnerabilities, malware, phishing and other sophisticated cyberattacks, and other incidents, for example, due to human error. Such events may result in misappropriation of funds, a negative impact on asset productivity, negative health and safety impacts, environmental damage, poor product quality, loss of intellectual property, disclosure of commercially or personally sensitive information, regulatory fines and/or other costs and reputational damage.

As Masan Resources continues successfully realising its growth strategy, its more prominent global profile and increased online presence will likely make a more attractive target for cyber security attack.

Despite our on-going reasonable attempts to protect us from cyber events, we may be vulnerable to targeted and non-targeted cyberattacks. In FY2019, we did not detect any cyber events that led to a significant breach of our business-critical technology environment or a material disclosure of market-sensitive information.

Cost pressures and reduced productivity could negatively impact our operating margins and expansion plans.

Cost pressures continue to occur across industry. As the prices for our products are influenced and driven by the global commodity markets, we have limited ability to offset these cost pressures through corresponding price increases, which can adversely affect our operating margins. Although our efforts to reduce costs and a number of key cost inputs are commodity price-linked, the inability to reduce costs and a timing lag could materially and adversely impact our operating margins for an extended period.

Besides secular rise in the costs, MSR's earnings could be materially and adversely affected by disruption in supply of key raw materials, reagents and consumables. These could include the unavailability of energy, fuel or water due to various reasons, including fluctuations in climate, inadequate infrastructure capacity, interruptions in supply due to equipment failure or other causes and the inability to extend supply contracts on economic terms.

Broadly, cost and productivity pressures on MSR and our contractors and sub-contractors may increase the risk of industrial action and employment litigation. These factors could lead to increased operating costs at existing assets, interruptions or delays and could negatively impact our operating margins and expansion plans.

Commercial counterparties have their own management and operating standards may take action contrary to our standards or fail to adopt or comply with standards equivalent to MSR's standards.

Commercial counterparties, such as our suppliers, contractors and customers, may not comply with our CHES standards or other standards we apply causing adverse reputational and legal impacts.

Sustainability risks

Community, Health, Environmental and Safety impacts, incidents or accidents may adversely affect our people, assets and reputation or license to operate.

Community

Our assets and activities may directly impact communities and also risk the potential for adverse impacts on human rights or breaches of other international laws or conventions.

Local communities may become dissatisfied with our operations or oppose our new development projects, including through legal action, leading to potential schedule delay, increased costs and reduced production. Community-related risks may include community protests or civil unrest, adverse human rights impacts, community health and safety complaints and grievances, shareholder activism and civil society activism. In extreme cases the risks may affect viability, adversely impacting our reputation and license to operate.

Climate change

The physical and non-physical impacts of climate change may affect our assets, productivity and the markets in which we sell our products. This includes acute and chronic changes in weather patterns, policy and regulatory change, technological development and market and economic responses. Fossil fuel-related emissions are a significant source of greenhouse gases contributing to climate change. We use fossil fuels in our mining and processing operations either directly or through the purchase of fossil fuel-based utilities and consumables such as electricity, reagents, etc.

A number of national governments have already introduced, or are contemplating the introduction of, regulatory responses to greenhouse gas emissions, including the extraction and combustion of fossil fuels to address the impacts of climate change. This includes all countries where we have assets including Vietnam, Germany, Canada, China, North America and Japan. In addition, the international community completed a global climate agreement at the 21st Conference of the Parties (COP21) in Paris in December 2015. The absence of regulatory certainty, global policy inconsistencies and the challenges associated in managing our diversified businesses portfolio across a variety of regulatory frameworks have the potential to adversely affect our assets and supply chain. These proposed regulatory mechanisms may adversely affect our assets directly, or indirectly through our suppliers and customers. Assessments of the potential impact of future climate change regulation are uncertain given the wide scope of potential regulatory change in the many countries in which we do business. Examples of this include China, which launched the world's largest emissions trading system in 2017.

The physical effects of climate change on our assets may include changes in rainfall patterns, water shortages, rising sea levels, increased storm intensities and higher temperatures. These effects could materially and adversely affect the financial performance of our assets.

Health

Health risks faced include fatigue, musculoskeletal illnesses and occupational exposure to substances or agents, including noise, silica, diesel exhaust particulate, cobalt, nickel and sulphuric acid mist, radiation and mental illness. Longer-term health impacts may arise due to unanticipated workplace exposures or historical exposures of our workforce or communities to hazardous substances. These effects may create future financial compensation obligations, adversely impact our people, reputation, regulatory approvals or licence to operate and affect the way we conduct our assets.

Given the global location of our assets, we could be affected by a public health emergency such as covid-19, influenza, dengue, or other infectious disease outbreaks in any of the regions in which our assets are located. Specifically the company has enacted response plans to manage the situation at its operations with regards the covid-19 pandemic.

Environment

Our assets by their nature have the potential to adversely impact air quality, biodiversity, water resources and related ecosystem services. Changes in scientific understanding of these impacts, regulatory requirements or stakeholder expectations may prevent, delay or reverse project approvals and result in increased costs for mitigation, offsets or compensatory actions.

Environmental incidents have the potential to lead to material adverse impacts on our people, communities, assets, reputation or license to operate. These include uncontrolled tailings containment breaches, and escape of polluting substances.

We provide for operational closure and site rehabilitation. Our operating and closed facilities are required to have closure plans. Changes in regulatory or community expectations may result in the relevant plans not being adequate. This may increase financial provisioning and costs at the affected assets.

Safety

Potential safety events that may have a material adverse impact on our people, assets, reputation or licence to operate include fire, explosion or rock fall incidents, road incidents involving buses and light vehicles, incidents between light vehicles and mobile mining equipment, shipping or vessel incidents, ground control failures, uncontrolled tailings containment breaches, gas leaks and accidents involving inadequate isolation, working from heights or lifting operations.

Our employees, contractors and third parties may be subjected to safety risks when travelling to and from sites or while onsite at an asset or corporate office.

Governance and compliance

Our processes are mandated and governed by the global standards and supporting strategies and frameworks. A failure to maintain effective global frameworks and associated controls may lead to a major health, safety or environmental incident.

MANAGEMENT OF PRINCIPAL RISKS

The scope of our operations and the industries in which we operate and engage mean that a range of factors may impact our results. Principal risks that could negatively affect our results and performance along with our approach to managing and mitigating these risks is outlined below.

External risks**Principal risk**

Risks arise from fluctuations in commodity prices and demand in major markets (in particular China) or changes in currency exchange rates and actions by governments, including new regulations and standards, alleged compliance breaches, pandemic, and political events that impact long-term fiscal stability.

Principal mitigation approach

The diversification of our portfolio of commodities, markets, geographies and currencies is a key strategy for reducing the effects of volatility. Section Risk Management describes external factors and trends affecting our results and note “Financial risk management” in section Risk Management outlines MSR’s financial risk management strategy, including market, commodity and currency risk. The Risk & Audit Committee oversees these risks as described in sections Risk Management and Principal risks. We also engage with governments and other key stakeholders to make sure the potential adverse impacts of proposed fiscal, tax, investment, infrastructure access, regulatory changes and evolving local and international standards are understood and, where possible, mitigated.

Our Code of Conduct sets out requirements related to working with integrity, including dealings with government officials and third parties. Processes and controls are in place for the internal control over financial reporting. The Legal function oversees our compliance with securities dealing obligations and continuous and periodic disclosure obligations.

Business risks**Principal risk**

Risks include the inherent uncertainty of identifying and proving reserves, adding assets and managing our capital development projects.

Principal mitigation approach

Our use of qualified 3rd parties help us to manage the technical integrity and provide assurance for our Mineral Resource development and Ore Reserves reporting.

We have established investment approval and monitoring processes applicable to all investment decisions, including mergers and acquisitions activities. An internal Investment Committee oversees these. Our capital expenditure request framework provides the structure and governance for adding growth options to our portfolio.

Our Projects function aims to make sure projects are safe, predictable and competitive.

Financial risks**Principal risk**

Continued volatility in global financial markets may adversely impact future cash flows, our ability to adequately access and source capital from financial markets and our credit rating. Volatility may impact planned expenditures, as well as the ability to recover investments in mining manufacturing projects. In addition, the commercial counterparties (customers, suppliers, contractors and financial institutions) we transact with may, due to adverse market conditions, fail to meet their contractual obligations.

Principal mitigation approach

We seek to maintain a strong balance sheet, supported by our portfolio risk management strategy. As part of this strategy, the diversification of our portfolio reduces overall cash flow volatility. We use regular cash flow analysis to monitor volatilities and key financial ratios. Credit limits and review controls are established for all customers and financial counterparties. The Risk & Audit Committee oversees these, as described in Finance Report which commences on page 76.

Operational risks**Principal risk**

Unexpected natural and operational catastrophes may adversely affect our assets. Information technology and operational technology services are subject to cybersecurity risks and threats that may materially affect our business and reputation. Operating cost pressures and reduced productivity could negatively affect operating margins and expansion plans.

Principal mitigation approach

By applying our risk management processes, we seek to identify catastrophic operational risks and implement the critical controls and performance requirements to maintain control effectiveness. Business continuity plans and crisis and emergency management plans are established to mitigate consequences. Consistent with our risk management approach, we continue to be largely 3rd party insured for losses arising from property damage, business interruption and construction.

Given we rely heavily on information technology and operational technology to operate assets, we employ a number of measures to protect, detect and respond to cyber events. A cyber risk management strategy is being developed to address how we maintain the security of our technology assets that support our operations across the globe. This strategy will include activities to be undertaken, including employee cybersecurity awareness and training, monitoring of our enterprise and operational technology networks, vulnerability identification and remediation activities, secure-by-design architecture and processes for the management of 3rd party technology risks. When incidents occur, they are to be investigated through root-cause analysis and, as required, follow-up actions are undertaken.

The Board receives periodic updates on cyber risk management activities, including relevant information on any significant cyber incidents that have occurred.

We aim to maintain adequate operating margins through our strategic objective to position MSR to match our values, capabilities and competitive resources to the evolving needs of markets, to create sustainable long-term value for shareholders and other stakeholders.

Our concentrated effort to reduce operating costs and drive productivity improvements has realised tangible results, with a reduction in controllable costs.

The capability to sustain productivity improvements is being further enhanced through continued refinements to our Operating Model. The operating model is being designed to deliver a simple and scalable MSR, providing a competitive advantage through defining work, organisational and performance measurements. Defined global business processes, including SAP, provide a standardised way of working across MSR. Common processes generate useful data and improve operating discipline. Global sourcing arrangements are being established to ensure continuity of supply and competitive costs for key supply inputs.

From an industrial relations perspective, detailed planning is undertaken to support the integration of the HCS business into MSR.

Sustainability risks**Principal risk**

CHESS incidents or accidents may adversely affect people or neighbouring communities, assets, reputation and our licence to operate. The potential physical impacts and related responses to climate change may impact the value of MSR, our assets and markets.

Principal mitigation approach

Our approach to sustainability risks is best reflected in our annual Sustainability Performance on page 54. The standards set out Group-wide CHESS-related performance requirements designed to support effective management control of these risks. The global CHES planning process will look to identify gaps in these standards, and inform global improvements to the CHESS framework.

Our approach to corporate planning, investment decision-making and business management provides a focus on the identification, assessment and management of climate change risks. Through a comprehensive and strategic approach to corporate planning, we use scenarios to assess our portfolio.

Our approach to engagement with community stakeholders is also outlined in our annual Sustainability Report.

We seek to conduct internal audits to test compliance with our standards and develop action plans to address any gaps. Key findings are reported to senior management and reports are considered by the Board Sustainability committee.

SUSTAINABILITY PERFORMANCE

IMPROVED SUSTAINABILITY GOVERNANCE STRUCTURE

As reported in last year's report, sustainability governance was strengthened in 2019 by further strengthening the changes made in 2018 with the implementation of the CHES (Community, Health, Environment, Safety and Sustainability) role at MSR.

Whilst we are still in the early phases of our CHES journey the lagging indicators for our 3 key measures are all tracking with positive momentum, these being: Safety and health for employees, Environmental protection, and Fostering transparent relations with surrounding communities.

Looking forward into 2020 and how we will look to improve our sustainability governance structure, MSR is committed to;

- Continuing to upskill its employees and contractor capability and knowledge through CHES.
- Undertake a review and gap analysis of organizational policies with a view to having final policy adoption within 12 months of closing the HCS transaction.
- Once the policy has been finalized, MSR's corporate sustainability goals will also be reassessed, communicated, and incorporated into the annual and long-term planning processes.



CHES (COMMUNITY, HEALTH, ENVIRONMENT, SAFETY AND SUSTAINABILITY)

In 2018, CHES has been established as Cross-Functional Executive Sustainability Committee, which is below the BOD appointed Sustainability Committee. CHES is entitled to engage across departments and divisions in the Company and its subsidiaries in order to implement the sustainability initiatives as well as to provide further oversight and strategic guidance. It also mobilizes employees to implement strategies and conduct regular meetings (monthly and quarterly) to review the performance. The functions involved can vary, but may include risk management, operations and facilities, communities and communications, human resources, environmental health and safety.



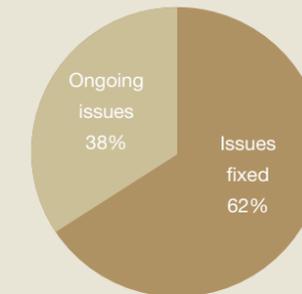
CHES (COMMUNITY, HEALTH, ENVIRONMENT, SAFETY AND SECURITY)

In 2019, the focus was on providing CHES Committee members with various training courses to upskill their safety capability and knowledge to become representatives in their work areas and better understand the CHES requirements, and then instruct other coworkers in the requirements. The main training activities for CHES representatives in 2019 included:

CHES training

No	Training topic	Attendee	Percent
1	CHES Induction	38	100%
2	CHES Constitution	38	100%
3	Workplace Inspection	18	47%
4	5S training	38	100%
5	Risk Assessment	9	24%
6	CHES Audit	9	24%

A total of 45 issues were raised through the CHES meetings, 28 issues were closed and 17 issues remained open with rectification ongoing at year end



FOCUS 2020

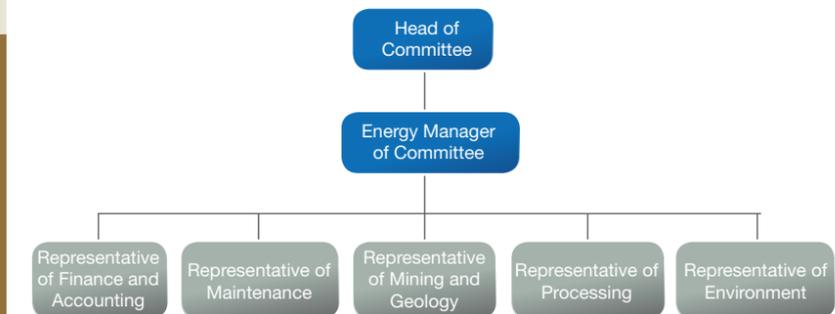
In 2020, the CHES committee and team members will receive ongoing training and development. The intent will be to maintain active employee engagement further building on the success of the program achieved during 2019.

ENERGY COMMITTEE



In 2019, the Energy Committee was established with the aim of improving energy consumption across MSR activities including:

- Develop plan and organize the implementation of energy audits and economical and efficient use of energy;
- Research and apply energy saving solutions at the factory;
- Implement training and awareness raising on economical and efficient use of energy;
- Identify inappropriate issues in the process of applying energy management model and take corrective actions.



HUMAN RESOURCES



HUMAN RESOURCE MANAGEMENT



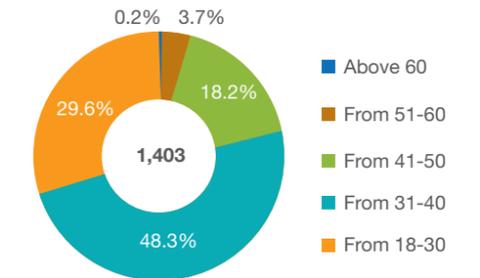
MSR is committed to providing fair remuneration and improving the welfare of its employees, and this has been recognized through receiving the award for “Enterprise for Employees” from the Thai Nguyen Labor Federation. An employee’s total income is determined based on several key factors: Position, Person, Performance aligned with the corporate bottom line; keeping pace with both the pay scale in the job market, while maintaining competitiveness to the local labour market. Additionally, MSR through the monthly “Star Award”, recognizes those individuals with outstanding performance or with significant contribution to the Company business and production operation or reputation.

Number of permanent employees and average income

Year	2018	2019
Employee number in totality	1,403	1,403
• NPMC	1,150	1,157
• MTC	253	246
In which		
• Vietnamese	1,303	1,309
• Expats	100	94
Average income (VND million per month) for Vietnamese employees	11.4	11.8

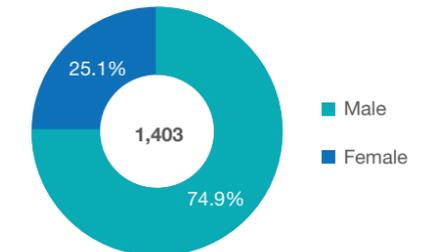
By Age

The Company’s employees are concentrated in the age group 31 to 40 years old, accounting for 48.3%, and the number of employees over 60 years old is 3 people, accounting for 0.2%. The detail for other groups is shown in the chart below:



By Gender

The concentration of male and females in the workforce was consistent with 2018, and is broadly in line with the gender mix across the mining industry.



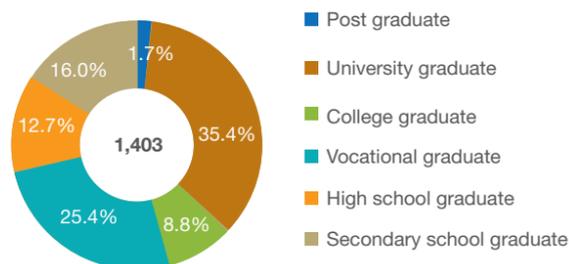
By Level

In MSR, the highest percentage of employees are categorized as workers, making up 54.5% of the total workforce. The next largest employee group is technical/clerical staff with 25.7% and 16.3% are supervisors.

Superintendent, managers, and directors make up the remainder of the workforce at 3.5% of the total.

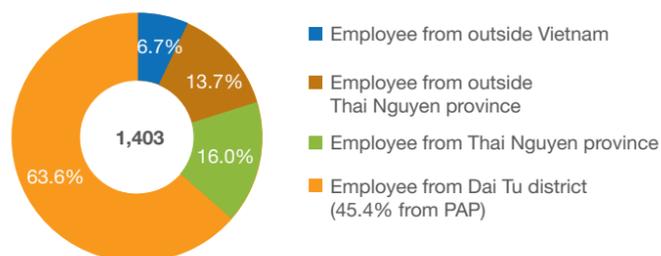
By Education

The MSR workforce is diverse in its educational background and consists of 29% of the workforce having completed secondary school and high school whilst the remaining workforce 71% has attained further qualifications. A combined 37% of the workforce has attained university qualifications or post graduate qualifications.



By Origins

MSR is committed to improving the lives of the people in the areas it operates and has been successful in achieving that objective through a targeted local recruitment program. 79% of the MSR total work force is from the Dai Tu district and Thai Nguyen province, with 45% of the total employees classified as project affected people (PAP). The remaining work force consists of Vietnamese from outside the Thai Nguyen province (nearly 14%) and foreign experts (nearly 7%).



EMPLOYEES ENGAGEMENT

2019 was an exciting year for Human resources training and development activities, as well as many other achievements.

Besides maintaining the Monthly Star Award to glorify a person or a team who has achieved outstanding performance and maintaining the quarterly opinion exchange to improve the working environment, the Company kept open dialogue and worked closely with the Trade Union to organize many employee engagement activities including:

- The 2019 summer trip for employees and people in their family;
- The sport event to celebrate the Company Day on 18/6;



- A series of activities undertaken as part of the “Beloved Tet Program”: Blood donation “A drop of blood given, life saved” with 206 blood units donated, Chung cake for the poor for “Tet reunion”, 2019 Year End Party and many other exciting events.

The result of these activities and our ongoing focus of engagement with our employees ensured we continue to maintain a stable and cohesive work force. In 2019, the resignation rate was 12.13% with voluntary turnover making up 8.42% of that total.



EMPLOYEES AND PEOPLE DEVELOPMENT

In MSR, we firmly believe that our employees are the foundation for sustainable business success and ongoing professional development of our personnel is key to that success. In 2019, a total of 72,539 training man hours were undertaken involving 23,473 attendees. Five compulsory training courses were deployed covering safety radiation, occupational health and safety, chemical handling and fire fighting prevention, rescue training.

Also, in this year, two other external courses were implemented for employees across the organization for ‘Train the Trainer’ and ‘Kaizen 5S’. For Train the Trainer, 87 people were certified. They are now applying those skills in the workplace by changing mind sets and applying different teaching and coaching styles to suit the learning situation as required. The Kaizen 5S training was a continuation of the training delivered in 2018 and continues to deliver real benefits to the company in its pursuit of continuous improvement.



In 2019, We also designed integrated training courses related to safety to better align ourselves to international HSE management systems as well as conducted a program for potential young talents named “SEAL” (Strategic, Entrepreneur, Business Acumen & Leadership). The full-scale roll-out of the program will be ongoing in 2020.

Description	2018	2019
Total cost invested in training (VND)	2,167,156,300.00	3,361,031,037
Total professional training man-hours	4,917	14,853
<u>In which:</u>		
• Total number of employee rounds trained in professional centers	1,903	8,445
• Total number of employee rounds trained by internal trainers	6,781	15,028
• Total number of contents trained by internal trainers	347	428
• Total number of contents trained in professional centers	30	44
• Total training materials developed internally	131	105

HEALTH AND SAFETY



Zero
fatalities

0.97

TRIFR (per 1,000,000 man-hours)

There are a variety of safety and health hazards and risks associated with mining operations. If managed effectively, such risks can have significant consequences for our employees, contractors, communities and our business as a whole.

The health and safety of our people are the highest priority at all our operating sites and across the entire company. Safety communication is one of the key priorities in distributing valuable safety information to all employees, contractors, and safety leadership development also helps to improve competencies that are important to safety compliance and performance management as well. Our commitments are based on a belief that all workers should go home safely after every shift.

Throughout 2019, MSR continues to provide various safety related training services such as hazardous chemicals management, site induction, in-house safety program covering hazardous identification, Safe Work Isolation Procedure System (SWIPS) and actions, risk training, management of change, emergency response training and Taproot. Concurrently, in order to support MSR's vision on safety and health, we have the Masan Resource Integrated Management System (MIMS) in place. This system comprises 17 system management standards and 24 performance management standards that ensure we, as MSR, adhere to our safety and health commitment in all our operations. Hearing protection awareness training was combined to general safety induction. There were 7,761 trained persons attended per 11,802 hours carried-out within 2019.

DELIVERING EXCELLENCE IN HEALTH AND SAFETY

At MSR, we follow the motto: *"People are the most important of the business, possessing healthy and talented human resources is the valuable investment and the key to sustainable business development"*. To support this motto, we are driven by a commitment to excellence in our health and safety performance for MSR employees as follows:

- Occupational disease;
- Accidents and medical emergencies;
- Non-communicable diseases, especially metabolic diseases;
- Infectious diseases, especially preventable disease.

We offer comprehensive, systemic community-based, both at the workplace and for family health, aligned with the National Health Programs, aimed at long-term health care, not just to ensure fit for work health.

The solutions focus on preventing, minimizing health risks, taking health education knowledge and timely handling of specific solutions. The health policies protect our employees and help to ensure we can continue to attract talented people into our business.



ENVIRONMENT



PERMITTING AND PERFORMANCE

MSR operates under eleven separate Environmental Impact Assessment Reports (EIAs). Under Vietnamese regulations, separate EIAs are required for each aspect of the project including mining, resettlement sites, road and rail infrastructure and power stations. The majority of permitting requirements were obtained in 2019, including:

- Certificate of Environmental Protection Works from Ministry of Natural Resource and Environment;
- New discharge license from Ministry of Natural Resource and Environment;
- Approval of additional environmental rehabilitation plan from Ministry of Natural Resource and Environment;
- Certificate of ISO 14001:2015;
- Certificate of Hi-tech Enterprise from Ministry of Science and Technology;
- Full compliance with the environmental regulations in the inspection Delegate of Ministry of Natural Resource and Environment.

In 2020, we commit to maintain goals related to enhancing permitting and compliance efforts with the aim to have zero significant non-compliance incidents related to our operation as well as remain compliance with the regular inspection of MONRE Delegates.

REHABILITATION

Throughout 2019, MSR continued environmental rehabilitation works in the areas where earthworks have been completed. The main aim of these rehabilitation works is to stabilize the embankment/slopes to minimize erosion, soil improvement and development of a cooperation with recognized organizations to further improve environmental rehabilitation and also to promote the environmental commitment of MSR to the community.

Extending plantation areas

In 2019, MSR spent US\$110,000 on field rehabilitation activity on area (12,7Ha) at the slopes of waste dumps, buffer zones and other disturbed areas of mining and operations by using a variety of plants and materials to increase the efficiency of environmental rehabilitation and restoration works. A total of 34,112 Acacia trees were planted, 1,610 kg of grass seeds sown, and 7,385 kg of fertilizer used. Since the commencement of the project to the end of 2019, NPMC rehabilitated a total of 60.5ha, making an important contribution to environmental protection works in the mining areas. The environmental rehabilitation works of MSR is impressed and high appreciated by competent delegation and international and local visitors.



WATER MANAGEMENT

We recognize the critical importance of water as a shared resource for our stakeholders as well as global society. This is because water scarcity and stress are key global challenges in general and mining companies in particular can play a significant role in helping to solve them, both individually and collectively. As a result, we view water management and stewardship as one of our most important sustainability issues.

Our operations interact with water in a variety of ways. All of our operations use water as a key input in processing activities. The goals of sustainable water consumption have motivated us to develop comprehensive water management plans as part of our environmental impact studies and assessment. The plans are tailored for each operation. As part of the plans, we continue to maintain comprehensive water quality and quantity monitoring program to help ensure that we meet all applicable regulatory requirements related to water. The plans include baseline water conditions and provisions for ongoing water sampling and analyzing.

Our field water teams maintain prime responsibility for water management. The teams are responsible for implementing the water management plans and for meeting all applicable regulatory requirement relater to water. Our goal is to recycle water.

METRIC	2019
Water consumption (m³)	10,683,000
Surface water (Cong River water)	2,576,000
Ground water for domestic	36,000
Water recycled (m³)	8,071,000
- Water from OTC	2,574,000
- Water from STC	4,613,000
- Water from Pit Transfer Pond	275,000
- Recycled water from Cut-off trench	609,000
Water recycled as % of consumption	75.5%
Water discharged (m³)	6,353,000

At our operations, in 2019, we recycled water up to 75.5% of our total water consumption used in the processing plant. We sometimes may need to discharge excess processing water to the environment. Before doing so, all excess processing water is pumped to Waste Water Treatment Plant (WWTP) for further treatment to make sure the water quality meets applicable specific discharge requirements. The quantity of water discharge has been calculated based on the Site Water Balance by GoldSim Model to make sure operating water level in TSF and water reservoirs are meeting the freeboard level.

The water quality after treating in WWTP then discharging to environment, is being sampled and monitored by automatic waste-water monitoring stations. The transmission of monitoring data at these stations is sent in real-time to the regulator in order to ensure transparency in meeting our reporting requirements to stakeholders. MSR invested US\$4.2M to construct the WWTP and US\$800,000 to install these automatic waste-water monitoring stations.

Floating wetlands for wastewater treatment

To improve the quality of water discharge, MSR has increased the use of umbrella rafts on the surface water area, with an estimated 3,000 m² of rafts constructed. This wetland model for improving water discharge quality is a good highlight in MSR’s environmental protection works and has been acknowledged as being best in class by the State agencies and stakeholders.



DEVELOPING THE WITNESS MODEL “AQUATIC GROWTH IN WATER DISCHARGE” INCLUDED GOLDFISHES AND TILAPIA IN WATER DISCHARGE

In 2019, MSR developed an initiative for constructing the witness model named: “Goldfish and Tilapia growth in water discharge” to demonstrate the good quality of water discharge for both aquatic life and vegetation, environmentally friendly to local community and stakeholders.

The visible model of fish’s growth combined with vegetation growth in water discharge has been highly acknowledged by the local communities, authorities and other stakeholders. This resulted from the recognized efforts for completing upgrade of WWTP and commencement of operation, ongoing improvement of water quality as well as opportunities to witness that MSR has been built “the show-case model” for sustainable development in mining not only in Viet Nam but also in the world.

ENVIRONMENTAL TRANSPARENCY



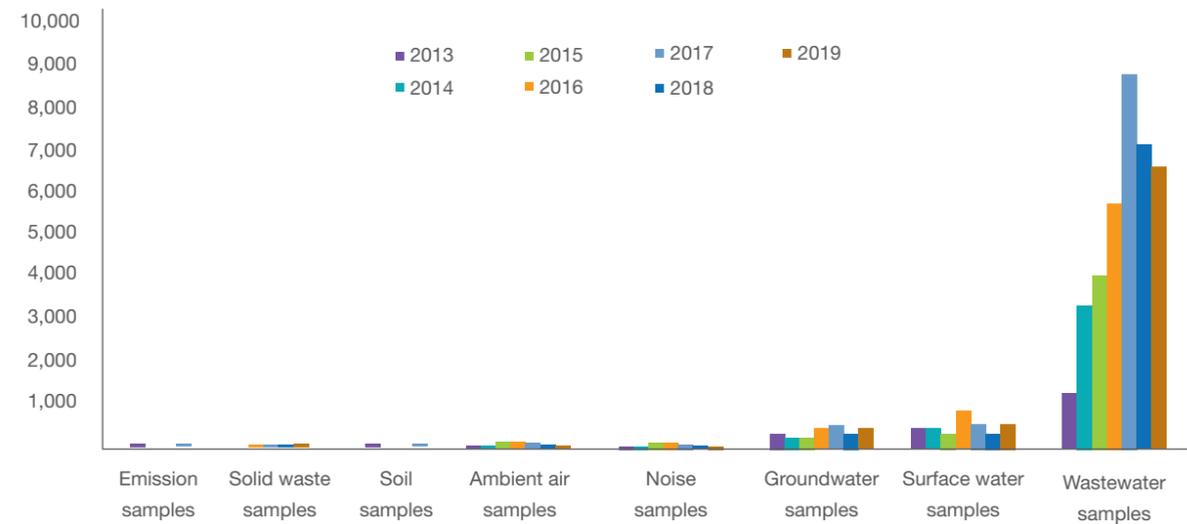
On-field monitoring activity

In 2019, MSR took 7,941 samples including internal and external samples taken by independent labs, out of which: 6,602 were water samples, 642 were surface water samples, 483 were ground-water samples, 81 solid waste and tailing samples, 67 were emission and ambient air samples and 12 were solid sample. MSR conducted a total of 169 days of environmental sampling taken and involved the representative of Thai Nguyen DONRE and/or Dai Tu DPC and/or Ha Thuong CPC who participated in the sampling program for the initial period of 25 days. Our field environment technicians' team are responsible for implementing the activity of sampling and monitoring on field to make sure that quality of environment from operation meets the applicable regulatory. In 2019, MSR spent a total US\$550,000 for activity of sampling and monitoring.

In 2019, MSR succeeded in the transmission of monitoring data from 4 automatic waste-water monitoring stations and 1 automatic gas monitoring station to DONRE in order to ensure the transparency and objectives to the stakeholders.



Total environmental samples taken



Responding

MSR has implemented continuously the environmental recommendations according to MONRE's report. MSR has completed most of the environmental recommendations with total expenditure of US\$2.5M, while only one has remained, which is scheduled to be completed in the next coming year.



Legal

- New water discharge license (1st amendment)
- Certificate of environmental protection works
- Decision of environmental rehabilitation plan
- Approval on successful transmitted data from automatic water and gas monitoring station to DONRE



Protection Works

- WWTP put into the operation and certified by MONRE
- Constructed aggregated bed for seepage treatment
- Installed recycled water pump in May pond to increase the volume of water recycle and minimize potential water pollution to the community
- Constructed retention sumps and trench in MW stockpile to minimize legal risk of surface water to the downstream



Pending

- The study of TSF's seepage assessment - stage 2

TAILING STORAGE FACILITY



Tailing management, dealing with the residues/sludge from minerals processing, is one of the most critical area of environmental management for mining operations. It always continues to receive global attention and MSR treat it very seriously with accountability. Notably, there is renewed emphasis on the part of mining companies – and the mining sector as a whole to demonstrate to stakeholders and the community that we are managing our tailing facilities responsibly.

MSR's mineral processing plant produces two separate tailing streams with different physical and geochemical properties including a relative inert oxide stream and a highly reactive sulfide stream. Tailing Storage Facilities (TSF) are designated and consist of two distinctive cells, namely:

- An Oxide Tailing Cell (OTC) to store oxide tailings and containing capacity ~ 28 Mm³
- A Sulfide Tailing Cell (STC) to store sulfide tailings and containing capacity ~ 23 Mm³

MSR's TSFs were investigated and designed by international consultants included Knight Piesold (KP) for ESIA and Pre-feasibility TSF Design; Golder Associated for Detailed Design and Construction. Notably, we are managing the operation and construction of tailing facilities according to site-specific conditions and meeting the criteria of good international standards. Tailings management is a key component of approved EIAs and corresponding management plans.

Annual independent review of TSF design, construction, operation, safety and environment is being chaired by Dr. Andrew Robertson (Robertson Consultant, Canada), Dr Bruce Brown (Brown Consultant, Australia) and biannual TSF's audits by KP (based in Brisbane, Australia).

“The TSF construction and operation at the Nui Phao site is being conducted to a high standard level and is well managed. The entire team should be commended on their efforts. We trust this information is sufficient for your current requirement” Knight Piesold Consulting (October 2019).

“Nui Phao has well defined accountabilities and responsibilities. There is a clear organizational structure from the site General Manager (GM) down to the field personnel. The field personnel are formally trained in QA/QC procedures and their training is verified and recorded. There is an internal EoR for the facilities who has the qualifications, experience and authority” Dr. Bruce Brown (October 2019).

The TSF's water management is assisted by Site Water Balance – GoldSim and automatic flow monitoring systems to ensure operating water ponds in TSF meets freeboard requirements and in compliance with discharge license. In 2019, we continued the initiatives to optimize water usage by increasing water recycling up to 7,187 MI to the plant equivalent to approximately 77% water used and US\$9.3M dollars were spent for constructing the TSF in 2019 (US\$ 87M spent to date).

COMMUNITY

“NO ONE LEFT BEHIND” AS OUR INITIATIVE FOR SDGs



ECONOMIC RESTORATION FUND

- VND 3.9 Billion contribution into 12 community development projects;
- Total 45 households accessed monies from this fund;
- 95% of 45 household improved their own household economic conditions.



COMMUNITY HEALTH, WATER AND SANITATION

- Provided clean-water supply program to 101 households with VND 500 Million;
- 19 training courses of public awareness waste and energy saving for 2,000 pupils and 1,500 households respectively;
- Free medical examination for 200 vulnerable people.



MICRO-LIVELIHOOD MODEL FOR VULNERABLE GROUPS

- 21 vulnerable women as single moms with disadvantaged circumstances assessed as models of livestock raising and cattle breeding;
- Organized 13 training courses and 3 study tours for 856 households for building capacity (disease prevention for cattle, VietGap husbandry, organic tea farming).



INFRASTRUCTURE SUPPORTING TO COMMUNITY

- Provided VND 56 Million construction of 80 hygiene latrines for 80 poor people;
- Provided VND 340 Million to construct 2 standardized toilets;
- Provided VND 50 Million to upgrade irrigation channel and lighting system.



DONATION & CHARITY

- Provided VND 110 Million for constructing and repairing houses for 6 poor households;
- Provided 250 Tet gifts for poor households equivalent VND 130 Million;
- Donated bicycles, scholarships and gifts to 90 students living in difficult circumstances.



COMMUNITY TRANSPARENCY

- 1,079 visitor from the State Government, international experts/professional, Universities, Media, local authorities and others;
- 197 meetings and consultations with 1,383 participants;
- 2,295 information items published with 190 contents;
- 329 visitors from Information Center and 56 written complaints resolved.

From Vietnam's Strategic Resources to High-Tech Global Materials



FINANCE REPORT

CORPORATE INFORMATION

MASAN RESOURCES CORPORATION

Enterprise Registration Certificate No.	0309966889	27 April 2010
	The Company's Enterprise Registration Certificate has been amended several times, the most recent of which was dated 20 May 2019. The Certificate and its amendments were issued by the Department of Planning and Investment of Ho Chi Minh City. The first Business Registration Certificate No. 0309966889 was issued on 27 April 2010.	
Investment Certificate No.	41122000131	2 August 2013
	The Investment Certificate was issued by the People's Committee of Ho Chi Minh City to the Company to implement the investment of "Ma San Resources Corporation" which has a term of 10 years from the date of the Investment Certificate.	
Board of Directors ("BOD")	Mr. Danny Le	Chairman (<i>appointed and approved by General Meeting of Shareholders (GMS) on 19/4/2019</i>)
	Mr. Chetan Prakash Baxi	Chairman (<i>resigned on 16/4/2019 and approved by GMS on 9/4/2019</i>)
	Mr. Nguyen Thieu Nam	First Vice Chairman (<i>appointed and approved by BOD on 19/4/2019</i>)
	Dr. Nguyen Dang Quang	Member (<i>resigned on 13/12/2019</i>)
	Mr. Nguyen Van Thang	Member
	Mr. Craig Richard Bradshaw	Member (<i>appointed and approved by GMS on 19/4/2019</i>)
	Mr. Dominic John Heaton	Member (<i>resigned on 26/7/2018 and approved by GMS on 19/4/2019</i>)
Board of Management	Mr. Craig Richard Bradshaw	General Director
	Mr. Stuart James Wells	Chief Financial Officer (<i>from 7/3/2019</i>)
	Ms. Nguyen Thi Thanh Mai	Chief Accountant
Registered Office	Suite 802, 8 th Floor, Central Plaza Building No. 17 Le Duan, Ben Nghe Ward, District 1 Ho Chi Minh City Vietnam	
Auditor	KPMG Limited Vietnam	

STATEMENT OF THE BOARD OF MANAGEMENT

The Board of Management of Masan Resources Corporation ("the Company") presents this statement and the accompanying consolidated financial statements of the Company and its subsidiaries (collectively referred to as "the Group") as of and for the year ended 31 December 2019.

The Board of Management is responsible for the preparation and presentation of the consolidated financial statements in accordance with Vietnamese Accounting Standards, the Vietnamese Accounting System for enterprises and the relevant statutory requirements applicable to financial reporting. In the opinion of the Board of Management:

- the consolidated financial statements set out on pages 105 to 154 give a true and fair view of the consolidated financial position of the Group as at 31 December 2019, and of the consolidated results of operations and the cash flows of the Group for the year then ended in accordance with the Vietnamese Accounting Standards, the Vietnamese Accounting System for enterprises and the relevant statutory requirements applicable to financial reporting; and
- at the date of this statement, there are no reasons to believe that the Group will not be able to pay its debts as and when they fall due. The financial statements have included adequate disclosure of matters relevant to the Board of Management assessment of the validity of the going concern assumption.

The Board of Management has, on the date of this statement, authorised these consolidated financial statements for issue.

On behalf of the Board of Management



Craig Richard Bradshaw
General Director

Ho Chi Minh City, 9 March 2020

INDEPENDENT AUDITOR'S REPORT

To the Shareholders
Masan Resources Corporation

We have audited the accompanying consolidated financial statements of Masan Resources Corporation ("the Company") and its subsidiaries (collectively "the Group"), which comprise the consolidated balance sheets as at 31 December 2019, the related consolidated statements of income and cash flows for the year then ended and the explanatory notes thereto which were authorised for issue by the Company's management on 9 March 2020, as set out on pages 105 to 154.

Management's Responsibility

The Company's management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with Vietnamese Accounting Standards, the Vietnamese Accounting System for enterprises and the relevant statutory requirements applicable to financial reporting and for such internal control as the management determines necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with Vietnamese Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Company's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Company's management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Auditor's Opinion

In our opinion, the consolidated financial statements give a true and fair view, in all material respects, of the consolidated financial position of the Group as at 31 December 2019 and of their consolidated results of operations and their consolidated cash flows for the year then ended in accordance with Vietnamese Accounting Standards, the Vietnamese Accounting System for enterprises and the relevant statutory requirements applicable to financial reporting.

KPMG Limited
Vietnam
Audit Report No.: 19-02-00167-20-1



Dam Xuan Lam
Practicing Auditor Registration
Certificate No.: 0861-2018-007-1
Deputy General Director
Hanoi, 9 March 2020

Wang Toon Kim
Practicing Auditor Registration
Certificate No.: 0557-2018-007-1

BALANCE SHEETS

Masan Resources Corporation
Consolidated balance sheet as at 31 December 2019

Form B 01 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC
dated 22 December 2014 of the Ministry of Finance)

	Code	Note	31/12/2019 VND'000	1/1/2019 VND'000
ASSETS				
Current assets (100 = 110 + 120 + 130 + 140 + 150)	100		7,581,595,985	4,333,718,245
Cash and cash equivalents	110	5	1,723,204,606	467,220,260
Cash	111		941,446,956	263,449,041
Cash equivalents	112		781,757,650	203,771,219
Short-term financial investments	120		5,900,000	-
Held-to-maturity investments	123		5,900,000	-
Accounts receivable - short-term	130		1,735,574,636	1,612,852,955
Accounts receivable from customers	131	6	280,413,823	960,321,689
Prepayments to suppliers	132		204,604,439	175,750,070
Loan receivables	135	7	1,000,000,000	-
Other receivables	136	8	250,556,374	476,781,196
Inventories	140	9	3,139,024,753	1,646,014,138
Inventories	141		3,139,024,753	1,646,014,138
Other current assets	150		977,891,990	607,630,892
Short-term prepaid expenses	151		41,186,774	45,996,377
Deductible value added tax	152		936,705,216	561,634,515

The accompanying notes are an integral part of these consolidated financial statements

Masan Resources Corporation and its subsidiaries
Consolidated balance sheet as at 31 December 2019 (continued)

Form B 01 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC
dated 22 December 2014 of the Ministry of Finance)

	Code	Note	31/12/2019 VND'000	1/1/2019 VND'000
Long term assets (200 = 210 + 220 + 240 + 250 + 260)	200		22,193,123,896	23,615,407,322
Accounts receivable – long-term	210		1,303,868,898	1,335,307,630
Other long-term receivables	216	8	1,303,868,898	1,335,307,630
Fixed assets	220		16,568,909,156	18,267,296,514
Tangible fixed assets	221	10	16,103,772,445	17,767,943,281
Cost	222		21,906,539,480	22,411,038,516
Accumulated depreciation	223		(5,802,767,035)	(4,643,095,235)
Finance lease tangible fixed assets	224	11	-	-
Cost	225		67,300,000	67,300,000
Accumulated depreciation	226		(67,300,000)	(67,300,000)
Intangible fixed assets	227	12	465,136,711	499,353,233
Cost	228		696,680,717	688,278,032
Accumulated amortisation	229		(231,544,006)	(188,924,799)
Long-term work in progress	240		1,694,487,259	1,429,178,901
Construction in progress	242	13	1,694,487,259	1,429,178,901
Long-term financial investments	250		-	5,900,000
Held-to-maturity investments	255		-	5,900,000
Other long-term assets	260		2,625,858,583	2,577,724,277
Long-term prepaid expenses	261	14	2,625,858,583	2,576,441,928
Deferred tax assets	262	20(i)	-	1,282,349
TOTAL ASSETS (270 = 100 + 200)	270		29,774,719,881	27,949,125,567

The accompanying notes are an integral part of these consolidated financial statements

Masan Resources Corporation and its subsidiaries
Consolidated balance sheet as at 31 December 2019 (continued)

Form B 01 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC
dated 22 December 2014 of the Ministry of Finance)

	Code	Note	31/12/2019 VND'000	1/1/2019 VND'000
RESOURCES				
LIABILITIES (300 = 310 + 330)	300		17,304,897,615	15,823,171,322
Current liabilities	310		11,219,362,163	4,101,944,806
Accounts payable to suppliers	311		324,870,571	526,342,610
Advances from customers	312	15	1,105,603,346	238,767,158
Taxes payable to State Treasury	313	16	199,721,483	66,770,503
Payables to employees	314		6,220	-
Accrued expenses	315	17	704,901,206	734,808,645
Other short-term payables	319	18	1,126,975,596	67,894,855
Short-term borrowings, bonds and financial lease liabilities	320	19(a)	7,757,283,741	2,467,361,035
Long-term liabilities	330		6,085,535,452	11,721,226,516
Other long-term payables	337	18	-	1,124,123,839
Long-term borrowings, bonds and financial lease liabilities	338	19(b)	4,969,653,657	9,491,007,736
Deferred tax liabilities	341	20(ii)	586,978,688	613,430,657
Provisions – long-term	342	21	528,903,107	492,664,284

The accompanying notes are an integral part of these consolidated financial statements

Masan Resources Corporation and its subsidiaries
Consolidated balance sheet as at 31 December 2019 (continued)

Form B 01 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC
dated 22 December 2014 of the Ministry of Finance)

	Code	Note	31/12/2019 VND'000	1/1/2019 VND'000
EQUITY (400 = 410)	400		12,469,822,266	12,125,954,245
Equity	410	22	12,469,822,266	12,125,954,245
Share capital	411	23	9,892,398,780	8,993,091,220
- Ordinary shares with voting rights	411a		9,892,398,780	8,993,091,220
Share premium	412	23	145,709,384	145,709,384
Other capital	414		(295,683,347)	(295,683,347)
Retained profits after tax	421		2,727,397,449	3,282,836,988
- Retained profits brought forward	421a		2,375,003,634	2,757,718,772
- Retained profit for the current year	421b		352,393,815	525,118,216
TOTAL RESOURCES (440 = 300 + 400)	440		29,774,719,881	27,949,125,567

9 March 2020

Prepared by:

Reviewed by:

Approved by:


Nguyen Thi Thanh Mai
Chief Accountant


Stuart James Wells
Chief Financial Officer


Craig Richard Bradshaw
General Director

The accompanying notes are an integral part of these consolidated financial statements

STATEMENTS OF INCOME

Masan Resources Corporation and its subsidiaries
Consolidated statement of income for the year ended 31 December 2019

Form B 02 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC
dated 22 December 2014 of the Ministry of Finance)

	Code	Note	2019 VND'000	2018 VND'000
Revenue from sales of goods	01	25	4,706,129,858	6,865,010,875
Cost of sales	11		3,971,145,298	4,703,549,284
Gross profit (20 = 01 - 11)	20		734,984,560	2,161,461,591
Financial income	21	26	931,680,260	126,790,749
Financial expenses	22	27	1,290,661,189	1,204,829,996
Selling expenses	25		104,782,370	104,331,557
General and administration expenses	26		142,007,143	127,022,646
Net operating profit (30 = 20 + 21 - 22 - 25 - 26)	30		129,214,118	852,068,141
Other income	31	28	1,230,029,410	2,098,777
Other expenses	32	29	893,457,185	26,054,374
Results of other activities (40 = 31 - 32)	40		336,572,225	(23,955,597)

The accompanying notes are an integral part of these consolidated financial statements

Masan Resources Corporation and its subsidiaries
Consolidated statement of income for the year ended 31 December 2019 (continued)

Form B 02 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC
dated 22 December 2014 of the Ministry of Finance)

	Code	Note	2019 VND'000	2018 VND'000
Accounting profit before tax (50 = 30 + 40)	50		465,786,343	828,112,544
Income tax expense – current	51	30	138,562,148	35,190,165
Income tax benefits – deferred	52	30	(25,169,620)	(17,079,300)
Net profit after tax (60 = 50 - 51 - 52)	60		352,393,815	810,001,679
Net profit attributable to:				
Equity holders of the Company	61		352,393,815	663,756,323
Non-controlling interest	62		-	146,245,356
			VND	VND (Restated)
Earnings per share				
Basic earnings per share	70	31	356	671

9 March 2020

Prepared by:



Nguyen Thi Thanh Mai
Chief Accountant

Reviewed by:



Stuart James Wells
Chief Financial Officer

Approved by:



Craig Richard Bradshaw
General Director

STATEMENTS OF CASH FLOWS

Masan Resources Corporation and its subsidiaries
Consolidated statement of cash flows for the year ended 31 December 2019
(Indirect method)

Form B 03 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC
dated 22 December 2014 of the Ministry of Finance)

	Code	Note	2019 VND'000	2018 VND'000
CASH FLOWS FROM OPERATING ACTIVITIES				
Profit before tax	01		465,786,343	828,112,544
Adjustments for				
Depreciation and amortisation	02		1,206,383,561	1,235,908,778
Allowances and provisions	03		39,749,622	41,014,656
Exchange (gains)/losses arising from revaluation of monetary items denominated in foreign currencies	04		(6,976,590)	6,989,532
Profits from investing activities	05		(40,014,585)	(27,848,288)
Interest expense and borrowing fees	06		1,161,519,606	1,079,797,011
Operating profit/(loss) before changes in working capital	08		2,826,447,957	3,163,974,233
Change in receivables	09		487,538,695	(982,999,214)
Change in inventories	10		(1,493,010,616)	(236,951,168)
Change in payables and other liabilities	11		773,365,144	131,197,383
Change in prepaid expenses	12		4,220,162	(93,222,743)
			2,598,561,342	1,981,998,491
Interest paid	14		(1,127,738,800)	(1,048,441,244)
Income tax paid	15		(39,142,971)	(36,533,036)
Net cash flows from operating activities	20		1,431,679,571	897,024,211

The accompanying notes are an integral part of these consolidated financial statements

Masan Resources Corporation and its subsidiaries
Consolidated statement of cash flows for the year ended 31 December 2019
(Indirect method - continued)

Form B 03 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC
dated 22 December 2014 of the Ministry of Finance)

	Code	Note	2019 VND'000	2018 VND'000
CASH FLOWS FROM INVESTING ACTIVITIES				
Payments for additions to fixed assets and other long-term assets	21		(888,223,637)	(1,076,471,346)
Compensation to finalize previously constructed fixed assets (Note 33(i))	21		984,161,905	-
Proceeds from disposals of fixed assets and other long-term assets	22		977,273	1,452,381
Payments for term deposit and granting loans to other parties	23		(1,000,000,000)	(5,900,000)
Term deposit received	24		-	32,500,000
Payments for acquisition of non-controlling interest	25		(8,525,794)	(695,653,481)
Receipt of interest	27		37,731,636	25,871,532
Net cash flows from investing activities	30		(873,878,617)	(1,718,200,914)

CASH FLOWS FROM FINANCING ACTIVITIES

Proceeds from borrowings and bonds	33		7,908,523,055	7,517,713,852
Payments to settle loan principals and bond issuance related costs	34		(7,206,551,527)	(6,999,320,201)
Payments to settle financial lease	35		-	(9,026,327)
Net cash flows from financing activities	40		701,971,528	509,367,324

The accompanying notes are an integral part of these consolidated financial statements

Masan Resources Corporation and its subsidiaries
Consolidated statement of cash flows for the year ended 31 December 2019
(Indirect method - continued)

Form B 03 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC
dated 22 December 2014 of the Ministry of Finance)

	Code	Note	2019 VND'000	2018 VND'000
Net cash flows during the year (50 = 20 + 30 + 40)				
	50		1,259,772,482	(311,809,379)
Cash and cash equivalents at the beginning of the year				
	60		467,220,260	780,414,201
Effect of exchange rate fluctuation on cash and cash equivalents				
	61		(3,788,136)	(1,384,562)
Cash and cash equivalents at the end of the year (70 = 50 + 60 + 61)				
	70	5	1,723,204,606	467,220,260

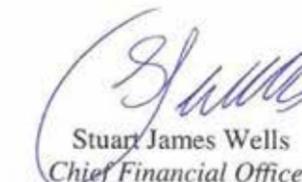
9 March 2020

Prepared by:



Nguyen Thi Thanh Mai
Chief Accountant

Reviewed by:



Stuart James Wells
Chief Financial Officer

Approved by:



Craig Richard Bradshaw
General Director

The accompanying notes are an integral part of these consolidated financial statements

NOTES TO THE FINANCIAL STATEMENTS

Masan Resources Corporation and its subsidiaries
Notes to the consolidated financial statements for the year ended 31 December 2019

Form B 09 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC
dated 22 December 2014 of the Ministry of Finance)

These notes form an integral part of and should be read in conjunction with the accompanying consolidated financial statements.

1. Reporting entity

Ownership and group structure

Masan Resources Corporation (“the Company” or “MSR”) is incorporated as a joint stock company in Vietnam. The principal activity of the Company is investment holding.

The consolidated financial statements comprise the Company and its subsidiaries (collectively referred to as “the Group”).

The principal activities of the subsidiaries are described as follows:

Name	Address	Principal activity	Percentage of economic interests at 31/12/2019 & 1/1/2019
Masan Thai Nguyen Resources Company Limited (“MRTN”)	Ho Chi Minh City	Investment holding	100%
Thai Nguyen Trading and Investment Company Ltd (“TNTI”)	Ho Chi Minh City	Investment holding	100%
Nui Phao Mining Company Limited (“NPMC”)	Thai Nguyen Province	Exploring and processing mineral (*)	100%
Masan Tungsten Limited Liability Company (“MTC”)	Thai Nguyen Province	Deep processing of nonferrous metals and precious metals (Tungsten)	100%

MTC is a subsidiary of NPMC. TNTI and NPMC are subsidiaries of MRTN. MRTN is a subsidiary of the Company.

(*) NPMC’s principal activities are to explore, exploit, mine and process tungsten, fluorite, bismuth, copper under the “Nui Phao Mining Project” in Ha Thuong Commune, Dai Tu District in Thai Nguyen Province for export and domestic sales. The “Nui Phao Mining Project” is under Investment Certificate No. 17121000026 which expires on 2 February 2034.

The percentage of economic interests represents the effective percentage of economic interests of the Company both directly and indirectly in the subsidiaries.

All the subsidiaries are incorporated in Vietnam.

As at 31 December 2019, the Group had 1,405 employees (1/1/2019: 1,403 employees).

Masan Resources Corporation and its subsidiaries
Notes to the consolidated financial statements for the year ended 31 December 2019
(continued)

Form B 09 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC
dated 22 December 2014 of the Ministry of Finance)

2. Basis of preparation

(a) Statement of compliance

The consolidated financial statements have been prepared in accordance with Vietnamese Accounting Standards, the Vietnamese Accounting System for enterprises and the relevant statutory requirements applicable to financial reporting.

(b) Basis of measurement

The consolidated financial statements, except for the consolidated statement of cash flows, are prepared on the accrual basis using the historical cost concept. The consolidated statement of cash flows is prepared using the indirect method.

(c) Going concern assumption

The financial statements have been prepared on a going concern basis. At the balance sheet date, the Group’s current liabilities exceeded its current assets by VND3,638 billion (1/1/2019: current assets exceeded current liabilities by VND232 billion). Furthermore, the Group have significant loans that will require refinancing within the next 12 months (Note 19). The validity of the going concern assumption fundamentally depends on the Company’s ability to restructure the outstanding payable with its related parties and to obtain additional financing resources as are necessary to enable the Company to meet its liabilities as and when they fall due and to maintain the Company in existence as a going concern for the foreseeable future.

At the time of this report, there is no reason for the management to believe that the Company will not be able to do so.

(d) Annual accounting period

The annual accounting period of the Company and its subsidiaries are from 1 January to 31 December.

(e) Accounting and presentation currency

The Group’s accounting currency is Vietnam Dong (“VND”). The consolidated financial statements are prepared and presented in VND rounded to the nearest thousand (“VND’000”).

3. Summary of significant accounting policies

The following significant accounting policies have been adopted by the Group in the preparation of these consolidated financial statements.

(a) Basis of consolidation

(i) Business combinations

Business combinations are accounted for using the purchase method as at the acquisition date, which is the date on which control is transferred to the Group. Control exists when the Group has the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. In assessing control, the Group takes into consideration the potential voting rights that currently are exercisable.

Under the purchase method, the assets and liabilities of the acquired entity are consolidated using their fair values. Cost of acquisition consists of the aggregate fair value at the date of exchange, of assets given, liabilities incurred or assumed, and equity instruments issued by the Group. Goodwill represents the excess of the cost of acquisition over the Group’s interest in the net fair value of the identifiable assets, liabilities and contingent liabilities of the acquired entity. When the excess is negative, it is recognised immediately in the statement of income.

Transaction costs, other than those associated with the issue of debt or equity securities, that the Group incurred in connection with business combinations included any costs directly attributable to the combination, such as professional fees paid to accountants, legal advisers, valuers and other consultants to effect the combination. Transaction costs are capitalised into the cost of business combination. General administrative costs and other costs that cannot be directly attributed to the particular combination being accounted for are not included in the cost of the combination; they are recognised as an expense when incurred.

Masan Resources Corporation and its subsidiaries
Notes to the consolidated financial statements for the year ended 31 December 2019
(continued)

Form B 09 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC
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(ii) Subsidiaries

Subsidiaries are entities controlled by the Group. Control exists when the Group has the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. In assessing control, potential voting rights that currently are exercisable are taken into account. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

(iii) Non-controlling interests

Non-controlling interests (“NCI”) are measured by their proportionate economic interest in the acquiree’s identifiable net assets at date of acquisition. Changes in the Group’s interest in a subsidiary that do not result in a loss of control are accounted for as transactions with owners. In accordance with Circular No. 202/2014/TT-BTC issued by the Ministry of Finance providing guidance on preparation and presentation of consolidated financial statements (“Circular 202”) which was applied prospectively from 1 January 2015, the difference between the change in the Group’s share of net assets of the subsidiary and any consideration paid or received is recorded directly in retained profits under equity.

(iv) Transactions eliminated on consolidation

Intra-group balances, and any unrealised income and expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements.

(v) Goodwill

Goodwill arises on the acquisition of subsidiary and is measured at cost less accumulated amortisation. Cost of goodwill represents the excess of the cost of the acquisition over the Group’s interest in the net fair value of the identifiable assets, liabilities and contingent liabilities of the acquiree in exchange for control of the acquire, plus any costs directly attributable to the acquisition. Goodwill arising on acquisition of a subsidiary is amortised on a straight-line basis over 10 years. Carrying value of goodwill arising on acquisition of a subsidiary is written down to recoverable amount when management determines that it is not fully recoverable.

(b) Foreign currency transactions

Transactions in currencies other than VND during the year have been translated into VND at rates approximating actual rates of exchange ruling at the transaction dates.

Monetary assets and liabilities denominated in currencies other than VND are translated into VND at the account transfer buying rate and account transfer selling rate at the end of the annual accounting period quoted by the commercial bank where the Company or its subsidiaries most frequently conducts transactions.

All foreign exchange differences are recorded in the consolidated statement of income.

(c) Cash and cash equivalents

Cash comprises cash balances and call deposits. Cash equivalents are short-term highly liquid investments that are readily convertible to known amount of cash, are subject to an insignificant risk of changes in value, and are held for the purpose of meeting short-term cash commitments rather than for investment or other purposes.

(d) Investments

(i) Held to maturity investments

Held-to-maturity investments are those that the Group’s management has the intention and ability to hold until maturity. Held-to-maturity investments include term deposits at bank, bonds and loan receivables held to maturity. These investments are stated at costs.

(ii) Trading securities

Trading securities are those held by the Group for trading purpose i.e. purchased for resale with the aim of making profits over a short period of time. Trading securities are initially recognized at cost which include purchase price plus any directly attributable transaction costs. Subsequent to initial recognition, they are measured at cost less allowance for diminution in value.

(e) Accounts receivable

Accounts receivable from customers and other receivables are stated at cost less allowance for doubtful debts.

Masan Resources Corporation and its subsidiaries
Notes to the consolidated financial statements for the year ended 31 December 2019
(continued)

Form B 09 – DN/HN
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(f) Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined on a weighted average basis and includes all costs incurred in bringing the inventories to their present location and condition. Cost in the case of finished goods and work in progress includes raw materials, direct labour and attributable mining and manufacturing overheads. Net realisable value is the estimated selling price of inventory items, less the estimated costs of completion and direct selling expenses.

The Group applies the perpetual method of accounting for inventories.

(g) Tangible fixed assets

(i) Cost

Upon completion of the mine construction phase, the assets are transferred into “building and structures”, “machinery and equipment” or “other mining assets” in tangible fixed assets. Tangible fixed assets are stated at cost less accumulated depreciation. The initial cost of a tangible fixed asset comprises its purchase price or construction cost, including import duties, non-refundable purchase taxes and any directly attributable costs of bringing the asset to its working condition and location for its intended use, and the costs of dismantling and removing the asset and restoring the site on which it is located. Expenditure incurred after tangible fixed assets have been put into operation, such as repairs and maintenance and overhaul costs, is normally charged to the statement of income in the year in which the costs are incurred. In situations where it can be clearly demonstrated that the expenditure has resulted in an increase in the future economic benefits expected to be obtained from the use of tangible fixed assets beyond their originally assessed standard of performance, the expenditure is capitalised as an additional cost of tangible fixed assets.

In situations where the self-constructed tangible assets have been completed and are put into used but their cost is not finalized, their historical cost will be recorded to provisional cost using temporarily estimated value and they shall be adjusted with the difference after the finalized cost are approved.

Other mining assets comprise mine rehabilitation assets; and fair value of mineral reserves and mineral resources from business combination.

(ii) Depreciation

Machinery and equipment and fair value of mineral reserves from business combination directly related to mining activities

Machinery and equipment and fair value of mineral reserves from business combination which are directly related to the mining exploitation activities is depreciated over its mineral reserve on a unit-of-production basis. Mineral reserves are estimates of the amount of product that can be economically and legally extracted from the Group’s mining properties.

Machinery and equipment of a subsidiary directly related to production activities

Tangible fixed assets of a subsidiary which are directly related to the deep processing of tungsten products are depreciated over its estimated useful lives on a units of production basis. The estimated total production quantity output which tangible fixed assets are depreciated on a unit-of-production basis are as follows:

	2019	2018
ST plant	171,865	125,140
	tonnes of tungsten	tonnes of tungsten
APT plant	166,990	120,265
	tonnes of tungsten	tonnes of tungsten

In the current year, MTC – a subsidiary conducted review of its tangible fixed assets and consequently increase the production quantity output of the tangible fixed asset to reflect accurately the expected production quantity output of assets. This resulted in a change in the estimated total production quantity output for ST and APT plants.

The effect on the depreciation charge for the current year was to decrease the depreciation charge by VND26,810 million.

Masan Resources Corporation and its subsidiaries
Notes to the consolidated financial statements for the year ended 31 December 2019
(continued)

Form B 09 – DN/HN
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Others

Depreciation is computed on a straight-line basis over the estimated useful lives of tangible fixed assets. The estimated useful lives are as follows:

- buildings and structures 5 – 20 years
- machinery and equipment 3 – 15 years
- office equipment 3 – 10 years
- motor vehicles 3 – 6 years
- other mining assets 19 years

In the current year, MTC also revised the estimated useful life of certain groups of assets to reflect the useful life of these assets more accurately. The effect on the depreciation charge for the current year was to decrease the depreciation charge by VND6,313 million. The revised estimated useful lives are as follows:

	2019	2018
buildings and structures	15-20 years	10-15 years

Construction asset which are completed and put into use before finalizing construction costs are stated at provisional cost. On the date the construction costs are finalized and approved, provisional cost shall be adjusted to finalized cost and accumulated depreciation shall not be adjusted. The subsequent depreciation charge is determined as the approved value minus the accumulated depreciation made for the period up to the approval of finalization of fixed asset divided by the remaining depreciation period of the fixed asset according to relevant regulations.

(h) Finance lease tangible fixed assets

Leases in terms of which the Group assumes substantially all the risks and rewards of ownership are classified as finance leases. Tangible fixed assets acquired by way of finance leases are stated at an amount equal to the lower of fair value and the

present value of the minimum lease payments at inception of the lease, less accumulated depreciation.

Depreciation on finance leased assets is computed on a straight-line basis over the estimated useful life of items of the leased assets which is five (5) years.

(i) Intangible fixed assets

(i) Software

Cost of acquisition of new software, which is not an integral part of the related hardware, is capitalised and treated as an intangible asset. Software costs are amortised on a straight-line basis over three (3) to eight (8) years.

(ii) Mining rights

The mining rights is calculated based on the remaining exploitable reserves multiplied with the price as announced by the provincial authorities in accordance with Decree 203/2013/ND/CP dated 28 November 2013 (“Decree 203/2013”) which became effective from 20 January 2014. Cost of mining rights was stated at an amount equal to the present value of mining rights fee and was capitalised and treated as an intangible asset. Amortisation of mining rights is computed on a straight-line basis over the period of 15 years which is the economic life of the mineral reserves.

(j) Construction in progress

Construction in progress represents mineral assets under development and cost of construction and machinery which have not been fully completed, installed and commissioned. It also comprises land compensation, mineral reserves, mineral resources and related development expenditure. These assets qualify for capitalisation when the mineral reserves to which they relate is proven to be commercially and technically viable. They are capitalised net of proceeds from the sale of commissioning products during the development phase. On completion of construction defined as the time when the assets are brought into the condition of its intended use, all assets are reclassified to tangible fixed assets as either “buildings and structures”, “machinery and equipment” or “other mining assets”; or long-term prepaid expenses as “other mining costs”.

Masan Resources Corporation and its subsidiaries
Notes to the consolidated financial statements for the year ended 31 December 2019
(continued)

Form B 09 – DN/HN
(Issued under Circular No. 202/2014/TT-BTC
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No depreciation is provided for construction in progress during the period of development, construction, installation and commissioning stages.

(k) Long-term prepaid expenses

(i) Land compensation costs

Land compensation costs comprise prepaid land lease rentals, compensation, resettlement and other costs incurred in conjunction with securing the use of leased land for its mining activities. These costs are recognised in the statement of income on a straight-line basis over the term of the lease.

(ii) Other mining costs

Other mining costs comprise:

- Exploration, evaluation and development expenditure (including development stripping); and
- Production stripping (as described below in ‘Deferred stripping costs’).

Deferred stripping costs

In open pit mining operations, it is necessary to remove overburden and other waste materials to access ore body. Stripping costs incurred in the development phase of a mine (development stripping costs) are recorded as part of the cost of construction of the mine. All development stripping expenditure incurred during construction phase are transferred to other mining costs.

The costs of removal of the waste material during a mine’s production phase (production stripping costs) are deferred where they give rise to future benefits:

- a) It is probable that the future economic benefits will flow to the Group;
- b) The component of the ore body for which access has been improved can be identified; and
- c) The costs incurred can be measured reliably.

Production stripping costs are allocated between inventory and long-term prepaid expenses in accordance with the life of mine strip ratio.

The life of mine strip ratio represents the estimated total volume of waste, to the estimated total quantity of economically recoverable ore, over the life of the mine. These costs are recognised as long-term prepaid expenses where the current year actual stripping ratio is higher than the average life of mine strip ratio.

The development and production stripping costs are amortised over the life of the proven and probable reserves of the relevant components on a systematic basis.

(iii) Other prepaid expenses

Other prepaid expenses include service fees which are initially stated at cost and amortised on a straight-line basis over the term of the contracts for services fees.

(l) Accounts payable

Accounts payable to suppliers and other payables are stated at their cost.

(m) Provisions

A provision is recognised if, as a result of a past event, the Group or the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability.

(i) Mining rights

In accordance with the Law on Minerals 2010, a subsidiary of the Company has an obligation to pay the government fees for mining rights grant. The mining rights fee is calculated based on the remaining exploitable reserves and the price to calculate the charge for granting mining rights in accordance with:

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- Decree 203/2013/ND-CP dated 28 November 2013 (“Decree 203”), Decree 158/2016/ND-CP dated 29 November 2016 (“Decree 158/2016”) and Circular 38/2017/TT-BTNMT dated 16 October 2017 (“Circular 38”) until 15 September 2019; and
- Decree 67/2019/ND-CP dated 31 July 2019 (“Decree 67”) from 15 September 2019.

Mining rights is calculated based on the remaining exploitable reserves and the price to calculate the charge for granting mining rights which is defined under the prices to calculate the resource royalty in accordance with the law on resource royalty at the time of determining the charge for granting mining rights. The prices to calculate the resource royalty is announced by the provincial People’s Committee. The conversion method is based on various parameters of the conversion coefficient under guidelines of Circular 38 and/or Decree 67.

(ii) Mine rehabilitation

The mining, extraction and processing activities of the Group normally give rise to obligations for site closure or rehabilitation. Closure and rehabilitation works can include facility decommissioning and dismantling; site and land rehabilitation. The extent of work required and the associated costs are dependent on the requirements of MONRE and the Group’s environmental policies based on the Environment Impact Report.

Provisions for the cost of each closure and rehabilitation program are recognised at the time that environmental disturbance occurs. When the extent of disturbance increases over the life of an operation, the provision is increased accordingly. Costs included in the provision encompass all closure and rehabilitation activity expected to occur progressively over the life of the operation proportional to the degree of influence on the environment existing at the reporting date.

Where rehabilitation is conducted systematically over the life of the operation, rather than at the time of closure, provision is made for the estimated outstanding continuous rehabilitation work at each reporting dates and the cost is charged to the

statement of income. Routine operating costs that may impact the ultimate closure and rehabilitation activities, such as waste material handling conducted as an integral part of a mining or production process, are not included in the provision. Costs arising from unforeseen circumstances, such as the contamination caused by unplanned discharges, are recognised as an expense and liability when the event gives rise to an obligation which is probable and capable of reliable estimation.

The timing of the actual closure and rehabilitation expenditure is dependent on the life of the mine. Closure and rehabilitation provisions are measured at the expected value of future cash flows, discounted to their present value and determined according to the probability of alternative estimates of cash flows occurring for each operation. Significant judgments and estimates are involved in forming expectations of future activities and the amount and timing of the associated cash flows. Those expectations are formed based on existing environmental and regulatory requirements which give rise to a constructive obligation.

When provisions for closure and rehabilitation are initially recognised, the corresponding cost is capitalised as an asset if the related obligations for closure and rehabilitation are unavoidable to the construction of the asset. The capitalised cost of closure and rehabilitation activities is recognised in other mining assets and depreciated accordingly. The value of the provision is progressively increased over time as the effect of the discounting unwinds, creating an expense recognised in financial expenses.

Closure and rehabilitation provisions will also be adjusted for changes in estimates. These adjustments will be accounted for as a change in the corresponding capitalised cost, except where a reduction in the provision is greater than the under-depreciated capitalised cost of the related assets, in which the capitalised cost is reduced to nil and the remaining adjustment is recognised in the consolidated income statement. Changes to the capitalized cost result in an adjustment to future depreciation. Adjustments to the estimated amount and timing

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of future closure and rehabilitation cash flows are a normal occurrence in light of the significant judgements and estimates involved.

(n) Bonds issued

At initial recognition, bonds are measured at cost which comprises proceeds from issuance net of issuance costs. Any discount, premium or issuance costs are amortised on a straight-line basis over the term of the bond.

(o) Equity

(i) Ordinary shares

Ordinary share capital is classified as equity. The excess of proceeds contributed over the par value of shares issued is recorded as share premium. Incremental costs directly attributable to the issue of ordinary shares are recognised as a deduction from share premium.

(ii) Preference shares

Mandatorily convertible preference shares are classified as equity. These are entitled to fixed dividends and any discretionary dividends declared to ordinary shareholders and it participates equally in the residual assets on dissolution. The excess of proceeds contributed over the par value of shares issued is recorded as share premium. Incremental costs directly attributable to the preference shares are recognised as a deduction from share premium.

(iii) Other capital

Equity movements resulting from acquisition or disposal to non-controlling interests and transactions involving equity instruments were recorded in “Other capital” prior to the prospective application of Circular 202 from 1 January 2015 (Note 3(a)(iii)).

(p) Taxation

Income tax on the profit or loss for the year comprises current and deferred tax. Income tax is recognised in the statement of income except to the extent that it relates to items recognised directly to equity, in which case it is recognised in equity.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted at the end of the annual accounting period, and any adjustment to tax payable in respect of previous years.

Deferred tax is provided using the balance sheet method, providing for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. The amount of deferred tax provided is based on the expected manner of realisation or settlement of the carrying amounts of assets and liabilities using tax rates enacted or substantively enacted at end of the annual accounting period.

A deferred tax asset is recognised only to the extent that it is probable that future taxable profits will be available against which the temporary difference can be utilised. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

(q) Revenue from the sale of goods

Revenue from the sale of goods is recognised in the statement of income when significant risks and rewards of ownership have been transferred to the buyer. No revenue is recognised if there are significant uncertainties regarding recovery of the consideration due or the possible return of goods. Revenue on sales of goods is recognised at the net amount after deducting sales discounts.

For sales of minerals, the sales price is usually determined on a provisional basis at the date of revenue recognition and adjustments to the sales price subsequently occurs based on movements in quoted market or contractual prices up to the date of final pricing. The period between provisional invoicing and final pricing is typically between 30 and 60 days, but in some cases can be as long as 90 to 180 days. Revenue on provisionally priced sales is recognised based on the estimated fair value of the total consideration receivable.

In cases where the terms of the executed contractual sales agreement allow for an adjustment to the sales price based on

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a survey of the goods by the customer, assay results issued by a third party are preferable, unless customer's survey is within executed contractual tolerance, then sales recognition is based on the most recently determined product specifications agreed by parties.

(r) Financial income and financial expenses

(i) Financial income

Financial income comprises interest income from deposits and loans and foreign exchange gains. Interest income is recognised as it accrues in the statement of income.

(ii) Financial expenses

Financial expenses comprise interest expenses on borrowings, facility fees, financing costs, transaction costs and foreign exchange losses.

(s) Operating lease payments

Payments made under operating leases are recognised in the statement of income on a straight-line basis over the term of the lease. Lease incentives received are recognised in the statement of income as an integral part of the total lease expense.

(t) Borrowing costs

Borrowings costs comprise interest expenses on borrowings, facility fees, financing costs and transaction costs. Borrowing costs are recognised as an expense in the year in which they are incurred, except where the borrowing costs relate to borrowings in respect of the construction of qualifying assets, in which case the borrowing costs incurred during the period of construction are capitalised as part of the cost of the fixed assets concerned.

(u) Earnings per share

The Group presents basic and diluted, if any, earnings per share ("EPS") for its ordinary shares. Basic EPS is calculated by dividing the profit or loss attributable to the ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the year. To determine the profit or

loss attributable to ordinary equity holders, profit or loss for the year is allocated to the ordinary shares and participating equity instruments. This allocation is made in accordance with the rights of the other class of shares to participate in distributions if the entire profit or loss were distributed.

Diluted EPS is determined by adjusting the profit or loss attributable to the ordinary shareholders and the weighted average number of ordinary shares outstanding for the effect of all dilutive potential ordinary shares.

(v) Segment reporting

A segment is a distinguishable component of the Group that is engaged either in providing related products or services (business segment), or in providing products or services within a particular economic environment (geographical segment), which is subject to risks and rewards that are different from those of other segments. The Group's primary and secondary format for segment reporting is based on business segments and geographical segments respectively.

(w) Related parties

Parties are considered to be related to the Group if one party has the ability, directly or indirectly, to control the other party or to exercise significant influence over the other party in making financial and operating decisions. Parties are also considered to be related if they are subject to common control or common significant influence. Related parties may be individuals or corporate entities and include close family members of any individual considered to be a related party. Related parties that are individuals refer to key management personnel who have authority and responsibility for planning, directing and controlling the activities of the Company, including directors and officers of the Company. Related companies refer to the investors and their ultimate holding companies and their subsidiaries and associates.

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4. Segment reporting

(a) Business segments

The Group comprises the following main business segments:

	Copper	Fluorspar	Tungsten	Others	Total
	VND'000	VND'000	VND'000	VND'000	VND'000
From 1/1/2019 to 31/12/2019					
Segment revenue	34,116,482	1,696,168,333	2,898,070,934	77,774,109	4,706,129,858
Segment gross profit/(loss)	6,914,560	1,076,441,562	(240,417,870)	(107,953,692)	734,984,560
Unallocated expenses					246,789,513
Financial income					931,680,260
Financial expenses					1,290,661,189
Results from operating activities					129,214,118
Other income					1,230,029,410
Other expenses					893,457,185
Income tax expenses					113,392,528
Net profit after tax					352,393,815

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	Copper	Fluorspar	Tungsten	Others	Total
	VND'000	VND'000	VND'000	VND'000	VND'000
From 1/1/2018 to 31/12/2018					
Segment revenue	942,301,136	1,381,223,555	4,215,790,172	325,696,012	6,865,010,875
Segment gross profit	530,675,974	876,394,721	672,811,508	81,579,388	2,161,461,591
Unallocated expenses					231,354,203
Financial income					126,790,749
Financial expenses					1,204,829,996
Results from operating activities					852,068,141
Other income					2,098,777
Other expenses					26,054,374
Income tax expenses					18,110,865
Net profit after tax					810,001,679
As at 31 December 2019					
Segment assets	167,025,898	826,106,905	1,874,331,657	1,051,224,444	3,918,688,904
Unallocated assets					25,856,030,977
Total assets					29,774,719,881
Total liabilities					17,304,897,615
As at 1 January 2019					
Segment assets	186,484,856	972,966,046	2,004,682,073	1,270,847,365	4,434,980,340
Unallocated assets					23,514,145,227
Total assets					27,949,125,567
Total liabilities					15,823,171,322

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	Copper	Fluorspar	Tungsten	Others	Total			
	VND'000	VND'000	VND'000	VND'000	VND'000			
From 1/1/2019 to 31/12/2019								
Capital expenditure	467,834	85,520	155,979,770	35,436,976	191,970,100			
Unallocated capital expenditure					696,253,537			
Depreciation	14,048,610	71,389,313	114,556,457	92,700,766	292,695,146			
Unallocated depreciation					913,688,415			
Unallocated amortisation					190,694,275			
From 1/1/2018 to 31/12/2018								
Capital expenditure	12,582,007	40,755,435	141,991,766	858,003	196,187,211			
Unallocated capital expenditure					880,284,135			
Depreciation	14,148,728	73,665,368	145,814,184	96,478,087	330,106,367			
Unallocated depreciation					905,802,411			
Unallocated amortisation					209,398,773			
(b) Geographical segments								
The Group comprises the following main geographical segments:								
	Vietnam	Belgium	Czech Republic	Japan	USA	Singapore	Others	Total
	VND'000	VND'000	VND'000	VND'000	VND'000	VND'000	VND'000	VND'000
As at and for the year ended 31/12/2019								
External revenue	65,376,789	1,616,222,115	225,482,636	945,394,214	616,156,308	104,764,762	1,132,733,034	4,706,129,858
Segment assets	29,522,101,450	97,267,774	1,013,850	45,487,936	12,308,133	-	96,540,738	29,774,719,881
Capital expenditure	888,223,637	-	-	-	-	-	-	888,223,637
As at 1/1/2019 and for the year ended 31/12/2018								
External revenue	991,899,199	1,262,874,650	813,509,380	995,738,741	655,357,744	1,404,428,741	741,202,420	6,865,010,875
Segment assets	27,580,791,560	211,464,347	-	68,068,207	17,102,787	11,983,149	59,715,517	27,949,125,567
Capital expenditure	1,076,471,346	-	-	-	-	-	-	1,076,471,346

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5. Cash and cash equivalents

	31/12/2019	1/1/2019
	VND'000	VND'000
Cash on hand	90,493	138,199
Cash in banks	941,356,463	263,310,842
Cash equivalents	781,757,650	203,771,219
	1,723,204,606	467,220,260

6. Accounts receivable from customers - short-term

Accounts receivable from customers detailed by significant customers

	31/12/2019	1/1/2019
	VND'000	VND'000
Related party		
Sales to a related company of a member of Members' Council	-	554,016,930
Other parties		
Tungsten customers	185,752,001	253,451,877
Fluorspar customer	64,831,341	64,623,036
Bismuth customers	1,941,870	51,231,040
Copper customers	27,744,460	36,524,594
Other customers	144,151	474,212
	280,413,823	960,321,689

The trade related amounts due from the related party are unsecured, bear interest at 1% per month from the payment due date and are receivable 90 days from the date of sales of goods.

7. Loans receivables

Loans receivables – short-term represent loans granted to Masan Group Corporation – ultimate parent company at the end of the year. The loan is unsecured and has interest rate of 8.2% per annum.

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8. Other short-term and long-term receivables

	31/12/2019	1/1/2019
	VND'000	VND'000
Short-term receivables		
Sale of claims receivable (a)	-	10,000,000
Receivable for mining rights fee (b)	239,835,807	-
Others (c)	10,720,567	466,781,196
	250,556,374	476,781,196
Long-term receivables		
Land compensation receivable from Thai Nguyen People's Committee (d)	1,249,999,696	1,303,754,210
Deposit paid to Environment Protection Fund (e)	53,306,374	30,990,592
Others	562,828	562,828
	1,303,868,898	1,335,307,630

(a) Sale of claims receivable were due from the immediate holding company, unsecured and receivable based on agreed terms and interest free. In 2019, the sale of claims that was novated in the past was cancelled.

(b) Receivable for mining rights fee ("MRF") represents additional mining rights fee of NPMC – a subsidiary for the year 2018 and 2019 and relevant administrative charges that NPMC has paid to the authorities based on temporary calculation by the General Department of Geology and Minerals ("GDGM") under the Official Letter No.3724/DCKS-KTDCKS dated 28 December 2018 ("the Official Letter 3724").

NPMC does not agree with the amount and basis of the Official Letter 3724 as the Company's management is of the opinion that it is unreasonable and does not comply with current regulation. For example:

- Based on current regulation, the requirement on MRF payment for the year 2018 has to be notified to the Company before 31 December 2017 (NPMC received the notification on 28/12/2018); and
- The price used to calculate the charge for granting mining rights (or mining right fee) is based on the prices to calculate the resource royalty. In accordance with regulations of the Government's Decree No. 12/2015/ND-CP dated 12 February 2015 and guidance of the Ministry of Finance's Circular No. 152/2015/TT-BTC dated 2 October 2015 on Royalties, if enterprises extracted natural resources undergo further processing instead of being sold, their price is exclusive of processing cost provided that it must be within the taxable price bracket imposed by the Provincial People's Committee. NPMC's products are industrial products, for which the taxable price for resource royalty is determined on the basis of the higher of selling price minus (-) processing cost and the taxable price imposed by the Provincial People's Committee. GDGM did not use the taxable price applied for industrial products, instead they used the taxable price applied for tungsten ore (0.1% < WO3 < 0.3%).

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Management believes that it had adequately provided for its liabilities for MRF based on its interpretation of relevant legislation, including on regulations on the charge for granting mining rights and regulations on natural resources tax. NPMC has made payment for MRF in accordance with Decision 500/QD-BTNMT issued by the Ministry of Natural Resources and Environment (“MONRE”) on 4 March 2015. Therefore the payment made under Official Letter 3724 has been deemed as receivable from advance payment. NPMC has sent letters to different level of authorities to highlight the issues and seek for proper resolutions. The final outcome may be subject to review and investigation by a number of relevant authorities.

- (c) A portion of other receivables as at 1 January 2019 pertained to amounts paid on behalf of an immediate parent company which were unsecured, receivable based on agreed terms and interest free. In 2019, due to the cancellation as mentioned in above Note 8(a), this other receivables linking with that agreement were written off.
- (d) Long-term receivables represented receivables from State Treasury for the land compensation cost of the Nui Phao Mining Project which was paid to the affected residents at Ha Thuong Commune, Dai Tu District, Thai Nguyen Province. The amount can be netted off against annual land rental fee of future years.
- (e) NPMC – a subsidiary is required to deposit for obligation to mine closure and environment rehabilitation obligation to Environment Protection. In accordance with Decision 1536/QD-BTMMT issued by MONRE dated on 20 June 2019, the mine rehabilitation plan requires deposit amount to be increased to VND123,460 million. On this date, the remaining deposit of VND87,692 million are approved for annual instalment over 10 years from 2019. The future deposit instalment will be based on the annual CPI fluctuation in accordance with Circular 38/2015/TT-BTNMT dated 30 June 2015.

9. Inventories

	Cost	
	31/12/2019	1/1/2019
	VND'000	VND'000
Goods in transit	54,194,593	25,063,836
Raw materials	237,723,007	166,017,804
Tools and supplies	572,289,604	556,865,086
Work in progress	139,145,869	139,900,326
Finished goods	1,259,545,121	746,927,733
Merchandise inventories	739,273,589	-
Goods on consignment	136,852,970	11,239,353
	3,139,024,753	1,646,014,138

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10. Tangible fixed assets

	Buildings and structures	Machinery and equipment	Office equipment	Motor vehicles	Other mining assets	Total
	VND'000	VND'000	VND'000	VND'000	VND'000	VND'000
Cost						
Opening balance	4,698,184,003	12,624,666,170	41,938,774	19,958,285	5,026,291,284	22,411,038,516
Additions	-	1,555,000	-	-	69,634,852	71,189,852
Transfer from construction in progress (Note 13)	347,106,893	110,567,626	609,535	-	-	458,284,054
Disposals	-	-	(321,217)	(3,771,337)	-	(4,092,554)
Finalization of construction costs						
• Adjustment due to the arbitration settlement (Notes 33(i))	(110,338,241)	(873,823,664)	-	-	-	(984,161,905)
• Adjustment due to finalization of cost	(4,177,004)	(41,541,479)	-	-	-	(45,718,483)
Closing balance	4,930,775,651	11,821,423,653	42,227,092	16,186,948	5,095,926,136	21,906,539,480
Accumulated depreciation						
Opening balance	806,303,809	2,865,762,055	36,618,723	12,949,335	921,461,313	4,643,095,235
Charge for the year	266,861,185	686,610,811	1,997,903	2,425,409	205,869,046	1,163,764,354
Disposals	-	-	(321,217)	(3,771,337)	-	(4,092,554)
Closing balance	1,073,164,994	3,552,372,866	38,295,409	11,603,407	1,127,330,359	5,802,767,035
Net book value						
Opening balance	3,891,880,194	9,758,904,115	5,320,051	7,008,950	4,104,829,971	17,767,943,281
Closing balance	3,857,610,657	8,269,050,787	3,931,683	4,583,541	3,968,595,777	16,103,772,445

Included in the cost of tangible fixed assets of the Group were assets costing VND49,896 million which were fully depreciated as at 31 December 2019 (1/1/2019: VND36,275 million), but which are still in active use.

At 31 December 2019, tangible fixed assets with carrying value of VND10,977 billion were pledged with banks as security for long-term bonds issued by NPMC (1/1/2019: VND12,361 billion) (Note 19(b)).

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11. Finance lease tangible fixed assets

The Company's subsidiary - NPMC leases laboratory equipment for assay testing. This laboratory equipment is considered to be a finance lease based on the lease's terms and conditions. The leased equipment secures lease obligations.

Included in the cost of finance lease tangible fixed assets of the Group were assets costing VND67,300 million which were fully depreciated as at 31 December 2019 (1/1/2019: VND67,300 million), but which are still in active use.

Machinery and equipment

VND'000

Cost	
Opening and closing balances	67,300,000
Accumulated depreciation	
Opening and closing balances	67,300,000
Net book value	
Opening and closing balances	-

12. Intangible fixed assets

	Software	Mining rights	Total
	VND'000	VND'000	VND'000
Cost			
Opening balance	99,907,214	588,370,818	688,278,032
Transfer from construction in progress (Note 13)	8,402,685	-	8,402,685
Closing balance	108,309,899	588,370,818	696,680,717
Accumulated amortisation			
Opening balance	61,354,769	127,570,030	188,924,799
Charge for the year	12,068,879	30,550,328	42,619,207
Closing balance	73,423,648	158,120,358	231,544,006
Net book value			
Opening balance	38,552,445	460,800,788	499,353,233
Closing balance	34,886,251	430,250,460	465,136,711

Included in the cost of intangible fixed assets were assets costing VND15,291 million which were fully amortised as at 31 December 2019 (1/1/2019: VND12,145 million), but which are still in use.

At 31 December 2019, intangible fixed assets with carrying value of VND465 billion were pledged with banks as security for long-term bonds issued by NPMC (1/1/2019: VND498 billion) (Note 19(b)).

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13. Construction in progress

	2019	2018
	VND'000	VND'000
Opening balance	1,429,178,901	987,802,403
Additions during the year	734,397,495	1,064,767,221
Transfer to tangible fixed assets (Note 10)	(458,284,054)	(601,822,915)
Transfer to intangible fixed assets (Note 12)	(8,402,685)	-
Transfer to long-term prepaid expenses (Note 14)	-	(4,693,269)
Transfer to short-term prepaid expenses	(2,402,398)	(16,874,539)
Closing balance	1,694,487,259	1,429,178,901

During the year, borrowing costs capitalised into construction in progress amounted to VND55 billion (2018: VND41 billion).

As at the reporting date, construction in progress of NPMC, which mainly represented land compensation, mine and plant development cost and other capitalised costs pertaining to tailing dams, have been pledged with banks as security for long-term bonds issued by NPMC (Note 19(b)).

Major constructions in progress were as follows:

	31/12/2019	1/1/2019
	VND'000	VND'000
Land compensation	709,194,565	591,813,635
Site clearance, relocation infrastructure and others	196,250,365	176,876,721
Plant, machinery and equipment	608,943,655	455,725,660
Tailing dams	30,254,309	112,928,231
Other assets	149,844,365	91,834,654
	1,694,487,259	1,429,178,901

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14. Long-term prepaid expenses

	Land compensation costs VND'000	Other mining costs VND'000	Others VND'000	Total VND'000
Opening balance	1,031,622,693	1,489,806,964	55,012,271	2,576,441,928
Additions	-	175,640,219	15,409,467	191,049,686
Transfer from long-term receivables	49,061,244	-	-	49,061,244
Amortisation for the year	(73,905,933)	(102,392,964)	(14,395,378)	(190,694,275)
Closing balance	1,006,778,004	1,563,054,219	56,026,360	2,625,858,583

15. Advance from customers - short-term

Advance from customers detailed by significant customers

	31/12/2019 VND'000	1/1/2019 VND'000
Tungsten customers	31,036,164	15,189,683
Fluorspar customer (*)	1,073,439,647	224,566,119
Bismuth customers	278,534	(1,085,811)
Copper customers	97,167	97,167
Other customers	751,834	-
	1,105,603,346	238,767,158

(*) Advance from Fluorspar customer shall be discharged through monthly instalments through scheduled deliveries. The advance is guaranteed by an intermediating company, bear prepayment fee based on agreed term.

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16. Taxes payable to State Treasury

	1/1/2019 VND'000	Incurred VND'000	Paid/Offset VND'000	31/12/2019 VND'000
Value added tax	-	439,814,823	(439,814,823)	-
Import-export tax	-	197,822,662	(197,822,662)	-
Corporate income tax	34,981,296	138,562,148	(39,142,971)	134,400,473
Environment protection tax	-	93,693,635	(93,693,635)	-
Personal income tax	29,782,961	157,676,334	(124,415,084)	63,044,211
Natural resource tax	-	302,907,910	(302,907,910)	-
Other taxes	2,006,246	51,227,099	(50,956,546)	2,276,799
	66,770,503	1,381,704,611	(1,248,753,631)	199,721,483

17. Accrued expenses

	31/12/2019 VND'000	1/1/2019 VND'000
Bonus	59,959,470	83,288,151
Accrued interest payable	239,049,922	280,911,923
Other financing costs	4,181,514	6,486,066
Natural resource taxes and fees	71,039,152	10,034,090
Accrual for construction work	14,187,389	80,589,745
Consultant fee	983,850	2,238,200
Operating costs	314,119,079	271,254,527
Others	1,380,830	5,943
	704,901,206	734,808,645

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18. Other short-term and long-term payables

Other payables included the following amounts:

	31/12/2019	1/1/2019
	VND'000	VND'000
Short-term:		
Amounts due to Masan Group Corporation (“MSN”) – the ultimate holding company		
Financial expenses – short-term (b)	1,124,123,839	-
Amounts due to Masan Horizon Company Limited (“MH”) – the immediate holding company		
Non-trade – short-term (a)	2,511,785	2,511,785
Other payable to other parties		
Other payables – short-term	339,972	65,383,070
	1,126,975,596	67,894,855
Long-term:		
Amounts due to MSN – the ultimate holding company		
Financial expenses – long-term (b)	-	1,124,123,839

(a) Amounts due to related parties were unsecured, interest-free and repayable based on agreement between the parties.

(b) Amounts due to related parties were unsecured, interest-free and repayable in December 2020.

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19. Borrowings, bonds and finance lease liabilities

(a) Short-term borrowings, bonds and finance lease liabilities

	1/1/2019	Movements during the year			31/12/2019	
	Carrying amount and amount within repayment capacity	Additions	Payments	Unrealised foreign exchange differences	Reclassifications from long term borrowings	Carrying amount and amount within repayment capacity
	VND'000	VND'000	VND'000	VND'000	VND'000	VND'000
Short-term borrowings	2,467,361,035	5,908,523,055	(5,174,740,407)	(12,286,603)	-	3,188,857,080
Current portion of long-term borrowings (Note(b))	-	-	-	-	4,568,426,661	4,568,426,661
	2,467,361,035	5,908,523,055	(5,174,740,407)	(12,286,603)	4,568,426,661	7,757,283,741

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Terms and conditions of short-term borrowings at respective reporting dates were as follows:

	Currency	31/12/2019 VND'000	1/1/2019 VND'000
Secured bank loan (i)	USD	864,314,359	1,160,156,910
Secured bank loan (i)	VND	150,308,000	-
Secured bank loan (ii)	VND	1,082,810,380	808,600,820
Secured bank loan (ii)	USD	15,908,877	201,929,965
Secured bank loan (iii)	USD	164,877,248	296,673,340
Secured bank loan (iii)	VND	504,905,811	-
Secured bank loan (iv)	VND	150,245,000	-
Secured bank loan (v)	VND	57,915,778	-
Secured bank loan (v)	USD	155,757,627	-
Secured bank loan (vi)	USD	41,814,000	-
		3,188,857,080	2,467,361,035

- (i) The USD and VND denominated loans from a related party bore interest ranging from 3.88% to 4.93% per annum and from 8.95% to 9.47% per annum, respectively. The loan is secured by part of short-term receivables of NPMC and 11.12% of the issued shares of the Company held by Masan Horizon Company Limited (“MH”).
- (ii) The loan from a local bank is secured by inventories and part of short-term receivables of NPMC. Specific loans drawn down in USD and VND bore interest ranging from 4.5% to 5.5% per annum and from 6.8% to 9.5% per annum, respectively.
- (iii) Specific loans drawdown in USD and VND by MTC – a subsidiary bore interest ranging from 5% to 6.3% per annum and from 8.3% to 9.6% per annum, respectively.
- (iv) Specific loans drawdown in VND by NPMC - a subsidiary bore interest ranging from 9.3% to 9.6% per annum.
The above loans as in a(iii) and a (iv) from a local bank are secured by 11.12% of the issued shares of the Company held by MH.
- (v) The loan from two branches of a foreign bank in Vietnam is unsecured. Specific drawdown in USD and VND bore interest ranging from 4.5% to 4.6% per annum and 6.8% per annum, respectively.
- (vi) The USD denominated loan from a foreign bank is secured by part of short-term receivables and all bank accounts of MTC opened at the bank. Specific loans drawn down in USD bore interest ranging from 3.3% to 3.9% per annum.

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(b) Long-term borrowings, bonds and finance lease liabilities

	31/12/2019 VND'000	1/1/2019 VND'000
Long-term bonds issued (i)	9,538,080,318	9,491,007,736
Repayable within twelve months (Note 19(a))	(4,568,426,661)	-
Repayable after twelve months	4,969,653,657	9,491,007,736

(i) Long-term bonds

Terms and conditions of outstanding long-term bonds denominated in VND were as follows:

	Year of maturity	31/12/2019 VND'000	1/1/2019 VND'000
Secured bond issued (a)	2020	3,570,177,119	5,519,052,180
Secured bond issued (b)	2020	998,249,542	994,333,333
Secured bond issued (c)	2023	496,989,214	496,333,333
Secured bond issued (d)	2021	995,555,556	992,888,890
Secured bond issued (e)	2023	1,490,800,000	1,488,400,000
Secured bond issued (f)	2024	496,533,333	-
Secured bond issued (g)	2022	298,133,333	-
Secured bond issued (h)	2022	198,711,110	-
Secured bond issued (i)	2024	496,533,333	-
Secured bond issued (j)	2022	99,288,889	-
Secured bond issued (k)	2022	188,648,889	-
Secured bond issued (l)	2022	208,460,000	-
		9,538,080,318	9,491,007,736

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These secured bonds in the consolidated financial statements were reported net of bond arrangement fees.

- (a) The VND denominated non-convertible bonds issued by NPMC with a five-year term bore interest rate of 8% per annum for the first twelve months. After the first twelve months, the applicable interest rate per annum will be adjusted every three months and calculated as the average twelve-month saving deposit rate of related reference banks plus 3%. The bond proceeds were used by NPMC and secured by certain long-term assets of NPMC. (Note 10, Note 12 and Note 13)
- (b) The VND denominated non-convertible bonds issued by NPMC with a two-year term bear interest rate of 9.5% per annum. The bond proceeds were used by NPMC and secured by 10.44% of the issued shares of the Company held by MH. The representatives of the bondholders is Techcom Securities JSC.
- (c) The VND denominated non-convertible bonds issued by NPMC with a five-year term bore interest rate of 10% per annum for the first twelve months. After the first twelve months, the applicable interest rate per annum will be adjusted every six months and calculated as the average twelve-month saving deposit rate of related reference banks plus 3.25%. The bond proceeds were used by NPMC and secured by 5.22% of the issued shares of the Company held by MH. The representatives of the bondholders is Techcom Securities JSC.
- (d) The VND denominated non-convertible bonds issued by the Company with a three-year term bore interest rate of 9.8% per annum for the first twelve months. After the first twelve months, the applicable interest rate per annum will be adjusted every six months and calculated as the average twelve-month saving deposit rate of related reference banks plus 3.2%. The bond was secured by 10.58% of issued shares of the Company held by MH. The representatives of the bondholders is Techcom Securities JSC.
- (e) The VND denominated non-convertible bonds issued by the Company with a five-year term bore interest rate of 10% per annum for the first twelve months. After the first twelve months, the applicable interest rate per annum will be adjusted every six months and calculated as the average twelve-month saving deposit rate of related reference banks plus 3.25%. The bond was secured by 15.65% of issued shares of the Company held by MH. The representatives of the bondholders is Techcom Securities JSC.
- (f) The VND denominated non-convertible bonds issued by NPMC with a five-year term bear interest rate of 10.2% per annum for the first twelve months. After the first twelve months, the applicable interest rate per annum will be adjusted every six months and calculated as the average twelve-month saving deposit rate of related reference banks plus 3.3%. The bond was secured by 5.62% of issued shares of the Company held by MH. The representatives of the bondholders is Techcom Securities JSC.
- (g) The VND denominated non-convertible bonds issued by NPMC with a three-year term bear interest rate of 10% per annum for the first twelve months. After the first twelve months, the applicable interest rate per annum will be adjusted every six months and calculated as the average twelve-month saving deposit rate of related reference banks plus 3.1%. The bond was secured by 3.37% of issued shares of the Company held by MH. The representatives of the bondholders is Techcom Securities JSC.
- (h) The VND denominated non-convertible bonds issued by NPMC with a three-year term bear interest rate of 10% per annum for the first twelve months. After the first twelve months, the applicable interest rate per annum will be adjusted every six months and calculated as the average twelve-month saving deposit rate of related reference banks plus 3.1%. The bond was secured by 2.25% of issued shares of the Company held by MH. The representatives of the bondholders is Techcom Securities JSC.

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- (i) The VND denominated non-convertible bonds issued by the Company with a five-year term bear interest rate of 10.2% per annum for the first twelve months. After the first twelve months, the applicable interest rate per annum will be adjusted every six months and calculated as the average twelve-month saving deposit rate of related reference banks plus 3.3%. The bond was secured by 5.62% of issued shares of the Company held by MH. The representatives of the bondholders is Techcom Securities JSC.
- (j) The VND denominated non-convertible bonds issued by NPMC with a three-year term bear interest rate of 10% per annum for the first twelve months. After the first twelve months, the applicable interest rate per annum will be adjusted every six months and calculated as the average twelve-month saving deposit rate of related reference banks plus 3.1%. The bond was secured by a number of issued shares of the Company held by MH, which will be finalized before 31 March 2020. The representatives of the bondholders is Techcom Securities JSC.
- (k) The VND denominated non-convertible bonds issued by NPMC with a three-year term bear interest rate of 10% per annum for the first twelve months. After the first twelve months, the applicable interest rate per annum will be adjusted every six months and calculated as the average twelve-month saving deposit rate of related reference banks plus 3.1%. The bond was secured by a number of issued shares of the Company held by MH, which will be finalized before 31 March 2020. The representatives of the bondholders is Techcom Securities JSC.
- (l) The VND denominated non-convertible bonds issued by NPMC with a three-year term bear interest rate of 10% per annum for the first twelve months. After the first twelve months, the applicable interest rate per annum will be adjusted every six months and calculated as the average twelve-month saving deposit rate of related reference banks plus 3.1%. The bond was secured by 11.62% of issued shares of the Company held by MH. The representatives of the bondholders is Techcom Securities JSC.

These secured bonds were reported net of bond arrangement fees.

20. Deferred tax assets, liabilities and unrecognised deferred tax assets

(i) Recognised deferred tax assets

	31/12/2019	1/1/2019
	VND'000	VND'000
Unrealised profit	-	1,282,349

(ii) Recognised deferred tax liabilities

	31/12/2019	1/1/2019
	VND'000	VND'000
Mineral reserves and mineral resources	583,078,428	613,430,657
Unrealized loss	3,900,260	-
	586,978,688	613,430,657

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(iii) Unrecognised deferred tax assets

Deferred tax assets have not been recognised in respect of the past years' tax losses of certain entities within the Group, which could be carried forward for up to 5 years:

	Tax losses available	
	31/12/2019 VND'000	1/1/2019 VND'000
Accumulated five year tax losses	243,094,826	4,654,646

The tax losses expire in the following years

Year of expiry	Status of tax reviewing	Tax losses available (*)
		VND'000
2020	Outstanding	123,788
2021	Outstanding	73,773
2022	Outstanding	87,944
2023	Outstanding	252,923
2024	Outstanding	242,556,398
		243,094,826

(*) This amount has not been finalized with tax authority and may change subsequent to the tax authorities's review.

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21. Provisions – long-term

Movements of long-term provisions during the year were as follows:

	Mine rehabilitation VND'000	Mining rights VND'000	Total VND'000
Opening balance	26,218,097	466,446,187	492,664,284
Provision made during the year	72,903,844	36,480,630	109,384,474
Provision used during the year	-	(73,145,651)	(73,145,651)
Closing balance	99,121,941	429,781,166	528,903,107

22. Changes in equity

	Share capital VND'000	Share premium VND'000	Other capital VND'000	Undistributed profit after tax VND'000	Equity attributable to equity holders of the Company VND'000	Non-controlling interest VND'000	Total equity VND'000
Balance at 1 January 2018	7,194,473,280	1,944,327,324	(295,683,347)	2,757,718,772	11,600,836,029	410,770,018	12,011,606,047
Net profit for the year	-	-	-	663,756,323	663,756,323	146,245,356	810,001,679
Bonus share issuance	1,798,617,940	(1,798,617,940)	-	-	-	-	-
Acquisition of NCI	-	-	-	(138,638,107)	(138,638,107)	(557,015,374)	(695,653,481)
Balance at 1 January 2019	8,993,091,220	145,709,384	(295,683,347)	3,282,836,988	12,125,954,245	-	12,125,954,245
Net profit for the year	-	-	-	352,393,815	352,393,815	-	352,393,815
Bonus share issuance	899,307,560	-	-	(899,307,560)	-	-	-
Acquisition of NCI (*)	-	-	-	(8,525,794)	(8,525,794)	-	(8,525,794)
Balance at 31 December 2019	9,892,398,780	145,709,384	(295,683,347)	2,727,397,449	12,469,822,266	-	12,469,822,266

(*) This amount is related to transaction costs for the acquisition of non-controlling interest in 2018 which was identified after 31 December 2018.

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23. Share capital

	31/12/2019		1/1/2019	
	Number of shares	VND'000	Number of shares	VND'000
Authorised share capital	989,239,878	9,892,398,780	899,309,122	8,993,091,220
Issued share capital				
Ordinary shares	989,239,878	9,892,398,780	899,309,122	8,993,091,220
Shares in circulation				
Ordinary shares	989,239,878	9,892,398,780	899,309,122	8,993,091,220
Share premium	-	145,709,384	-	145,709,384

All ordinary shares have a par value of VND10,000. Each share is entitled to one vote at meetings of the Company. Shareholders are entitled to receive dividends as declared from time to time. All ordinary shares are ranked equally with regard to the Company's residual assets. In respect of shares bought back by the Company, all rights are suspended until those shares are reissued.

Share premium represents the excess of the proceeds on issuance of shares over the par value.

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Movements in share capital during the year was as follows:

	2019		2018	
	Number of shares	VND'000	Number of shares	VND'000
Issued share capital				
Balance at the beginning of the year	899,309,122	8,993,091,220	719,447,328	7,194,473,280
Bonus shares issuance	89,930,756	899,307,560	179,861,794	1,798,617,940
Balance at the end of the year	989,239,878	9,892,398,780	899,309,122	8,993,091,220
Share premium				
Balance at the beginning of the year	-	145,709,384	-	1,944,327,324
Bonus shares issuance	-	-	-	(1,798,617,940)
Balance at the end of the year	-	145,709,384	-	145,709,384

On 4 November 2019, the Company announced its plan for the issuance of bonus shares by increasing share capital from retained profit as approved by AGM Resolution No. 75/2019/NQ-DHDCD. On the shareholder book closing date, 18 November 2019, each current ordinary shareholder who was holding 100 shares is entitled to receive 10 bonus shares. On 22 November 2019, the Company's Board of Directors issued Resolution to approve bonus share issuance for increasing share capital from the owner equity by VND899,307,560,000 for 89,930,756 shares. On 12 December 2019, Hanoi Stock Exchange issued Decision No.845/QD-SGDHN which approved the increasing share capital from owner equity for 89,930,756 shares.

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24. Off balance sheet items

(a) Lease

The future minimum lease payments under non-cancellable operating leases were:

	31/12/2019	1/1/2019
	VND'000	VND'000
Within one year	2,145,000	2,460,000
Within two to five years	-	5,740,000
	2,145,000	8,200,000

(b) Foreign currencies

	31/12/2019		1/1/2019	
	Original currency	VND'000 equivalent	Original currency	VND'000 equivalent
USD	30,746,796	710,558,466	9,766,512	227,402,336

(c) Bad debts written off

	31/12/2019	1/1/2019
	VND'000	VND'000
Bad debts written off	21,507,965	16,433,002

(d) Capital expenditure commitments

As at 31 December 2019 the Group had the following outstanding capital commitments approved but not provided for in the balance sheet:

	31/12/2019	1/1/2019
	VND'000	VND'000
Approved but not contracted	1,040,288	24,397,849
Approved and contracted	14,594,996	57,111,513
	15,635,284	81,509,362

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(e) Final sales pricing adjustment

As disclosed in Note 3(q), the Group had the commitments under sales contract to adjust the sales price of its product sold based on future quoted market price at the London Metal Bulletin ("LMB") at the agreed final pricing date. The revenue on provisionally priced sales is initially recognized based on the estimated fair value of the total consideration receivable. Such revenue is subject to adjustment at the final pricing date subsequent to year end.

Total revenue as at 31 December 2019 that have been recognised on a provisional basis is VND301 billion (1/1/2019: VND384 billion).

25. Revenue from sales of goods

Total revenue of the Group represents the gross value of goods sold exclusive of value added tax.

26. Financial income

	2019	2018
	VND'000	VND'000
Settlement of past interest expenses from the arbitration settlement (Note 33(i))	809,725,000	-
Interest income from deposit and loans	39,037,312	26,443,265
Foreign exchange gains	78,308,024	59,710,104
Others	4,609,924	40,637,380
	931,680,260	126,790,749

27. Financial expenses

	2019	2018
	VND'000	VND'000
Interest expense	1,079,224,166	997,110,422
Borrowing fees	82,295,440	82,686,589
Foreign exchange losses	54,140,686	62,956,445
Others	75,000,897	62,076,540
	1,290,661,189	1,204,829,996

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28. Other income

	2019	2018
	VND'000	VND'000
Other compensation from the arbitration settlement (Note 33(i))	1,212,834,666	-
Gain on scrap sales	9,741,897	-
Gain on disposal of fixed asset	977,273	1,405,023
Other	6,475,574	693,754
	1,230,029,410	2,098,777

29. Other expenses

	2019	2018
	VND'000	VND'000
Other expenses from arbitration settlement (Note 33(i))	522,246,200	-
Cancellation of past sales of claim (Note 8(a))	256,200,000	-
Compensation for cancellation of sales of claims (Note 8(a))	74,736,877	-
Tax penalties	32,904,728	2,446,581
Others	7,369,380	23,607,793
	893,457,185	26,054,374

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30. Income tax

(a) Recognised in the statement of income

	2019	2018
	VND'000	VND'000
Current tax expense		
Current year	128,366,030	35,190,165
Under provision for prior years	10,196,118	-
	138,562,148	35,190,165
Deferred tax benefit		
Origination and reversal of temporary differences	(25,169,620)	(17,079,300)
Income tax benefit	113,392,528	18,110,865

(b) Reconciliation of effective tax rate

	2019	2018
	VND'000	VND'000
Profit before tax	465,786,343	828,112,544
Tax at the Company tax rate	93,157,269	165,622,509
Non-deductible expenses	21,340,103	1,924,546
Tax incentives	(32,286,329)	(81,283,126)
Effect of different tax rates in subsidiaries	1,762,922	(75,159,542)
Tax losses utilised for which deferred tax asset was not recognized	-	(351,540)
Under provision for prior years	10,196,118	-
Deferred tax assets not recognized	24,259,305	-
Change in temporary differences	(5,036,860)	7,358,018
	113,392,528	18,110,865

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(c) Applicable tax rates

The Company has an obligation to pay the government corporate income tax at the rate of 20% of taxable profits. The Company's subsidiaries have obligation to pay the government income tax in accordance with the prevailing regulations. Some of the Company's subsidiaries are entitled to significant tax incentives as follows:

- On 25 March 2015, the investment project of a subsidiary was recognised as a high-tech project by Ministry of Science and Technology. In accordance with income tax incentives applicable for high-tech project, the subsidiary has an obligation to pay the government income tax rate of 10% of taxable profit for the first 15 years starting from the year in which it was granted with the Certificate of high-tech project. The current tax regulations allow the subsidiary to be exempt from income tax for 4 years from the first year the subsidiary generates taxable profit and entitled to 50% reduction in income tax for the 9 succeeding years. The income tax regulations also specify that if the first tax period of high-tech project having tax incentive duration of shorter than 12 months, the subsidiary may choose to apply tax incentives to the high-tech project from that first tax period or register with the tax authority the beginning date of tax incentive period from the following tax period. Accordingly, the subsidiary has registered to apply tax incentives from the following tax period i.e. from year 2016.

On 27 December 2019, the subsidiary was granted the Certificate for high-tech enterprise by Ministry of Science and Technology replacing the Certificate of high-tech investment project. The change does not impact income tax incentives as described above.

- Under the terms of its Investment Certificate and the applicable tax regulations another subsidiary has an obligation to pay the government income tax rate at the rate of 15% of taxable profit from mining and processing activities for mineral products other than gold for 12 years from the date of commencement of commercial production (2014-2025) and at the standard income tax rate in line with the Investment Certificate and prevailing tax regulations thereafter. The applicable tax regulations allow the subsidiary to be exempt from income tax for 3 years starting from the first year it generates a taxable profit (2014-2016) and entitled to a 50% reduction in income tax for the 8 succeeding years (2017-2024).

All of the above tax exemption and reduction are not applicable to other income which is taxed at the standard income tax rate applicable to enterprises before any incentives of 20%.

(d) Tax contingencies

The taxation laws and their application in Vietnam were subject to interpretation and may change over time. The final tax position may be subject to review and investigation by a number of authorities, who are enabled by law to impose severe fines, penalties and interest charges. These facts may create tax risks in Vietnam that are more significant than in other countries. Management believes that it had adequately provided for tax liabilities based on its interpretation of tax and legislation, including on transfer pricing requirements and computation of corporate income tax and deferred tax liabilities. However, the relevant authorities may have different interpretations.

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31. Basic earnings per share

The calculation of basic earnings per share for the year ended 31 December 2019 was based on the profit attributable to ordinary shareholders of VND352,394 million (2018: VND658,330 million) and a weighted average number of ordinary shares outstanding of 989,239,878 shares (restated for the year ended 31 December 2018: 981,152,513 shares), calculated as follows:

(a) Net profit attributable to shareholders

	2019	2018
	VND'000	VND'000
Net profit attributable to:		
Mandatorily convertible preference shareholders (up to 16 May 2018)	-	5,426,428
Ordinary shareholders	352,393,815	658,329,895
	352,393,815	663,756,323

(b) Weighted average number of shares

	2019	2018
		(Restated)
Issued ordinary shares at the beginning of the year	899,309,122	703,544,898
Conversion of preference shares into ordinary shares on 16 May 2018	-	10,020,709
Effect of bonus shares issued on 31 August 2018	-	178,391,364
Effect of bonus shares issued on 18 November 2019	89,930,756	89,195,542
Weighted average number of ordinary shares for the year ended 31 December	989,239,878	981,152,513

As a result of the issuance of 89,930,756 bonus share on 18 November 2019, where ordinary shares are issued to existing shareholders for no additional consideration, in accordance with Vietnamese Accounting Standards, the weighted average number of ordinary shares outstanding during the year and for all periods presented shall be adjusted for events that have changed the number of ordinary shares outstanding without a corresponding change in resources. Accordingly, the Company's management has restated the weighted average number of ordinary shares for the year ended 31 December 2019 from 891,956,971 shares to 981,152,513 shares.

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32. Significant transactions with related parties

In addition to related party balances and transactions disclosed in other notes to these financial statements, the Group had the following transactions with related parties during the year:

(a) Related party balances

As at and for the year ended 31 December 2019, the Group have current and term deposit accounts at Vietnam Technological and Commercial Joint Stock Bank (“TCB”) at normal commercial terms.

As at 31 December 2019, associates of the ultimate holding company and the ultimate holding company held VND319,180 million (1/1/2019: VND829,388 million) and VND1,250,000 million (1/1/2019: VND1,499,990 million) of the issued bonds of the Group respectively.

(b) Related party transactions

Related Party	Nature of transactions	2019	2018
		VND'000	VND'000
Ultimate holding company			
Masan Group Corporation	Bond interest	120,429,756	17,260,159
	Loan granted	1,000,000,000	-
Ultimate holding company's associate			
Local bank	Interest expense and borrowing fees	73,109,464	109,606,407
	Loan received	1,367,341,337	1,651,044,370
	Loan paid	1,498,587,983	1,406,718,782
	Bond proceeds received (i)	2,000,000,000	3,800,000,000
	Bond related fees paid	18,550,000	-

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Related Party	Nature of transactions	2019	2018
		VND'000	VND'000
Ultimate holding company's subsidiary			
Masan Consumer Corporation	Purchase of goods	1,352,168	1,072,107
	Purchase of services	2,509,043	3,261,776
Masan Horizon Company Limited	Fees paid on behalf by NPMC	2,050,559	8,220,964
	Cancellation of sales of claims (Note 8(a))	256,200,000	-
	Compensation for cancellation of sales of claims (Note 8(a))	74,936,877	-
Key management personnel			
	Salary, bonus and other benefits (ii)	31,123,186	29,448,024
Members' Council (“MC”)			
Member of MC	Sales of goods to a related company of a member (iii)	-	720,924,481
	Purchase of goods from a related company of a member (iii)	725,041,695	-

(i) The bonds are listed and sold to a broader set of investors pursuant to an arrangement agreements.

(ii) No board fees were paid to Board of Directors members for the year ended 31 December 2019 and 31 December 2018.

(iii) In 2018, NPMC has sold goods to a related company of a member of MC and subsequently in 2019, NPMC has purchased such goods from such related company. The transaction was approved by the Member Council on 25 March 2019.

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33. Significant events

(i) Claims against Jacobs E&C Australia PTY Limited

On 28 March 2019, a panel of three arbitrators appointed by the Singapore International Arbitration Center (the “Arbitral Tribunal”) has awarded NPMC – a subsidiary of the Company a partial final award as compensation for E&C Australia Pty Ltd (“Jacobs”)’s conduct (“Partial Final Award”). The case concerns the circumstances of the entry into and the performance of an engineering and procurement services agreement which was executed by NPMC and Jacobs in 2011 for engineering, procurement and construction management of NPMC’s mineral processing plant in Thai Nguyen Province, Vietnam.

In addition to the Partial Final Award, the Arbitral Tribunal also had claims before it in relation to interest and cost.

In August 2019, NPMC and Jacobs settled the international arbitration case for USD130 million. Jacobs paid NPMC USD130 million in September 2019. As part of the settlement, NPMC has unconditionally waived its right to the Partial Award and all claims and actions in relation to the international arbitration case.

The compensation received by NPMC had been treated as:

- reduction of fixed assets costs (due to over payments for over claims of construction related costs or other construction or rectification costs that should not be incurred in the first place);
- financial income; and
- other income.

in accordance with the nature of the compensation.

(ii) Agreement to acquire H.C Starck’s Tungsten business

On 17 September 2019, MTC signed an agreement to purchase the tungsten business of H.C Starck Group GmbH (“HCS”). HCS is a leading manufacturer of high-tech tungsten metal powders and carbides (midstream tungsten products) with global operation and modern automated manufacturing processes. The agreement is undergoing certain regulatory approvals and the acquisition shall be executed once the legal procedures completed.

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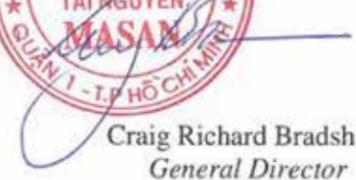
34. Corresponding figures

Corresponding figures as at 1 January 2019 were derived from the balances and amounts reported in the Group’s consolidated financial statements as at and for the year ended 31 December 2018.

9 March 2020

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CAUTIONARY NOTE REGARDING FORWARD LOOKING STATEMENTS

This communication contains information that may constitute “forward-looking statements”. Generally, the words “believe”, “expect”, “intend”, “aim”, “estimate”, “anticipate”, “project”, “will” and similar expressions identify forward-looking statements, which generally are not historical in nature. However, the absence of these words or similar expressions does not mean that a statement is not forward-looking. All statements that address operating performance, events or developments that we expect or anticipate will occur in the future – including statements relating to volume growth, share of sales and earnings per share growth, and statements expressing general views about future operating results – are forward-looking statements.

Management believes that these forward-looking statements are reasonable as and when made. However, caution should be taken not to place undue reliance on any such forward-looking statements because such statements speak only as of the date when made. Masan Resources Corporation undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. In addition, forward-looking statements are subject to certain risks and uncertainties that could cause audited results to differ materially from our company’s historical experience and our present expectations or projections. These risks include commodity pricing risks and the prices we obtain for our Tungsten, Copper, Fluorspar and Bismuth are determined by, or linked to, prices in world markets, which have historically been subject to substantial volatility. Fluctuations in commodity prices can occur due to price shifts reflecting underlying global economic and geopolitical factors, industry demand, increased supply due to the development of new productive resources, technological change, product substitution and national tariffs. Volatility in global economic growth has the potential to adversely impact future demand and prices for commodities. This has the potential to negatively impact future earnings and cash flows. These risks and uncertainties include, but are not limited to, those described elsewhere in this report and those described from time to time in our future reports filed with the Hanoi Stock Exchange.

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ABBREVIATIONS/ DEFINITIONS

ACCA	Association of Chartered Certified Accountants
AGM	Annual General Meeting
ANCO	Argo Nutrition International Joint Stock Company
APEC	Asia-Pacific Economic Cooperation
APT	Ammonium Paratungstate
APT Plant	Tungsten Chemicals Processing Plant of Masan Tungsten LLC
BOD	The Board of Directors of the Company
BOJ	Bank of Japan
BTO	Blue Tungsten oxide
C&R	Compensation and Resettlement
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CHESS	Community, Health, Environment, Safety and Sustainability committee
Company	Masan Resources Corporation and its subsidiaries
CSI	Corporate Sustainability Index
CSR	Corporate social responsibility
DP2	Discharge Point 2
DP3	Discharge Point 3

EBITDA	Earnings before Interest, Taxes, Depreciation and Amortization	MAINT	Maintenance
EC	Electro-chromic	Masan Group	MSN and its subsidiaries
ENV	Environment	Masan Horizon or MH	Masan Horizon Company Limited
ERD	Economic Restoration Development	Masan Resources or MSR	Masan Resources Corporation
FY	Financial Year	MNS	Masan Nutri-Science Corporation
GDP	Gross Domestic Product	MRTN	Masan Thai Nguyen Resources Company Limited
H.C.Starck or HCS	H.C. Starck GmbH	MSN	Masan Group Corporation
HNX	The Hanoi Stock Exchange	MTC	Masan Tungsten Company
HR	Human Resources	NHTCM	Nui Phao - H.C. Starck Tungsten Chemicals Manufacturing
HRD	Human Resources Department	NPAT	Net Profit After Tax
HSS	Health, Safety and Security Department	NPMC	Nui Phao Mining Company Ltd
IT	Information technology	Nui Phao Project	The project named "Nui Phao project for exploitation and processing of mineral" under Investment Certificate No. 17121000026 dated July 21, 2010 (and its amendments, supplements) granted by the People's Committee of Thai Nguyen Province
ITIA	The International Tungsten Industry Association	PCDP	Public consultation and information disclosure program
Law on Enterprises	Law on Enterprises No. 68/2014/QH13 dated November 26, 2014 of the National Assembly of the Socialist Republic of Vietnam	PROC	Processing
LCD	Liquid Crystal Display	R&D	Research & Development
LTI	Lost-Time-Injury	RMI	Responsible Minerals Initiative
LTIFR	Lost Time Injury Frequency Rate	S&M	Sales and Marketing
M&A	Mergers and Acquisitions	SCM	Supply chain management
M&G	Mining & Geology		

A Vietnamese company can lead the transformation
in the global tungsten industry

