



(Incorporated in the Cayman Islands with limited liability) Stock Code: 03788

# ENVIRONMENTAL, SOCIAL & GOVERNANCE REPORT 2016



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# Chairman's Statement

In 2016, the global mining market was very volatile with trough at the beginning of the year and then rally at the end of the year, showing a market trend characterized with an upsurge following a dip. The recovery in the iron ore and certain non-ferrous metal markets appeared an unexpected surprise to most of the players in the industry, delivering a rapid and substantial rally imaginable, which defied the traditional supply-demand equation. Nevertheless, with the improvement in the market condition, Hanking recorded substantial increase in revenue from all business segments and significant decrease in loss. The strategy of "limited diversification" implemented by the Group began to have effect. The SXO Gold Project recorded an output of 121,456 ounces, representing a year-on-year increase of 106%. Revenue derived from the gold business accounted for over 52.4% of total revenue of the Group, hence becoming the most important core business of the Group. With the expansion of the gold business, Hanking expanded from pure "iron ore" operation to multi-mineral operation of "gold, iron ore and nickel".

In 2016, the gold business continued to adhere to the principle of low-cost operation, i.e. realizing low-cost production through the lowest input. Gold output was gradually increased synchronized exploration of several mines, successfully maintaining stable production and improving our productivity. The Group has established a competent and efficient team with a full suite of professional skills for gold mine operations, laying a solid foundation for the long-term growth of Hanking's gold business. By developing the open-pit mines at Cornishman and Axehandle and jointly developing the underground mines at Nevoria, the SXO Gold Project gold output amounted to 58,887 ounces last year. Through optimization of production process and maintenance system of the processing plant, the production cost of the gold business was brought under control with steady decrease in cash cost, recording a net profit of RMB3,853,000 for the year.

In 2016, the iron ore business of the Group made effort to enhance production, technology research and coordination. Upholding the production principle of "production efficiency and cost control", the Group implemented the policy of "distinct strategy for each mine" in light of the difficulties of each mine incurred by restrictive operation, and optimized the processing technique and process, leading to significant improvement in production efficiency. Aoniu Mine focused on optimization of pit shell as the open-pit mining entered into the stage of tailings exploitation which was accompanied with great change in ore grade. In light of the current condition of the pit shell and production sites of the existing open-pit mine, efforts were made to rationally adjust the pit shell limit of the open-pit mine to avoid unnecessary stripping. Process plant of Maogong Mine carried out phase II technological improvement to optimize equipment, shorten production process and improve processing technique. By refining its management, Process plant of Maogong Mine maintained a good development momentum of stable production and high efficiency. The output of iron ore concentrates increased by 30.3% year-on-year, creating a new record high.





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### Chairman's Statement



Since the law prohibiting raw ore export promulgated by the Indonesia government took effect, focus of the Group's nickel ore project in Indonesia shifted to the planning and fund raising for the construction of smelting project. The Group conducted extensive discussion and consultation with a number of institutional investors and corporate entities and identified certain intention of cooperation on some projects related to electricity, etc. As at the end of last year, with the easing of restrictions on raw nickel ore export by the Indonesia government, it became increasingly likely that a green light will be granted for the export of low grade nickel ore. The accelerated effort by the Chinese companies to construct smelting facilities in Indonesia drove the development of the local nickel ore sales market. The Group proactively sought for cooperation opportunities to strive for early resumption of production at the mine. The Group had entered into cooperation agreements for joint exploration and marketing with two local mining companies in Indonesia, and is scheduled to commence mining production and ore sales in the first half of next year.

Through top-level design of strategic positioning, cultural guidance and investment decisions, the Group has achieved comprehensive improvement and progress in terms of safety, environmental protection, community, health and other fields. A highly recognized corporate responsibility culture is the prerequisite for fulfilling social responsibilities in an all-round way as well as the basis for the value perception that is consistent and interlinked among the senior management, all employees and numerous partners. Through various means including training and promotion, the Group enhances the culture advocating "corporate citizen responsibility", so that the management and frontline staff may reach consensus on the performance of social responsibility and voluntarily execute and fulfill all the targets set by the Group in term of social responsibility. As regards the development and utilization of resources, the Group, through innovation in concept, management and technology, continues to create new social values, and promotes harmony and mutual prosperity between the Company and investors, employees, customers, partners, communities, the public and government or non-governmental organizations, becoming a sophisticated international mining enterprise characterized by strong sense of responsibility, wide recognition and eco-development.

In order to fulfill the long-term enterprise development plan and provide the social environments with positive energy, the Group is developing and improving a comprehensive value system to drive the sustainable development of the enterprise. The Group takes energy conservation, emission reduction and recycling economy into account throughout the processes of corporate strategic decisions, investment activities, business processes and operations management, and treats it as the new competitiveness and the efficiency growth point of the enterprise. The Group has established the Health, Safety, Environmental Protection and Community (HSEC) Committee for the macro planning of the Group's fulfillment of social responsibility and the supervision of the fulfillment of major responsibility, and further improved the organizational structure and management system of health, safety, environmental protection and community management.

In order to carry out effective communication, the Group has developed comprehensive modes and guidelines of communication, while establishing a regular and irregular communication mechanism to ensure close contact with all stakeholders related to its corporate social responsibility, with an aim to seek understanding and support. The Group has formulated implementation plans and approaches in respect of different units which will fulfill social responsibilities, and periodically evaluated the effectiveness by performance assessment. In addition, by holding various joint meetings, the Group discussed and reviewed the actual effect of safety and environmental protection related work (such as stakeholders' satisfaction, social integrity, etc.) and established smooth communication channels for resolving issues related to safety, environmental protection, health and community in operations of all levels of the Company, so as to evaluate the effect of fulfilment of social responsibility and room for improvement, with an aim to find a new breakthrough for improving future work.

The Group continued to be committed to maintaining relatively high standards of corporate governance, tried to maintain transparency and openness to shareholders and market, and held periodic Board meetings, general meetings and extraordinary general meetings. In 2016, the Group increased the scope and content of voluntary announcements, notified the society and market of its major strategic adjustments, progress in business cooperation and major operating results in a timely manner, and improved the labour and social security system for employees. In order to further strengthen the trust between the Group and the government, the Group increased the communication and expanded the scope thereof. By setting up "work coordination groups" in some villages where its mines are located and establishing a co-working mechanism



between mines and village committees, the Group resolved claims from villagers and dissolved village-enterprise contradictions in a timely and efficient manner, so as to promote the harmonious and steady development of mines. The ultimate goal of all these efforts is to develop the Group into an international enterprise which meets the shareholders' satisfaction, is favoured by employees and is recognized by the society.

In 2016, all mines maintained good records of safety and environmental protection. No malignant accidents involving production safety or environmental protection happened in the Group. As regards environmental protection and construction of green mines, the Group has done a lot of specific work, such as the completion of mine reclamation and afforestation projects for 269.84 mu of forestland and farmland and design work of the closure of tailing ponds. While making efforts in well dealing with the village-enterprise relationship and government-corporate relationship, the Group was also actively involved in various welfare activities of the communities, initiatively rendering affordable assistance for vulnerable groups of the communities.

The Group provided systematic trainings regarding safety emergency response, enabling our staff to make rapid response to various unforeseen safety incidents. For example, in light of the weather condition in 2016, Aoniu Mine organized members of the emergency management division of Aoniu Mine to re-watch such videos as Special Drill on Tailing Ponds Emergency Response Plan by Aoniu Mine (《傲牛尾礦庫應急預案專項演練》) and Emergency Response Drill for Roof-fall Accidents in Underground Mine by Aoniu Mine (《傲牛地採冒頂事故現場處置方案演 練》) in June 2016. In addition, Aoniu Mine organized desktop maneuvers for emergency rescue plan of 2016 on the hypothetical scenario of flood overtopping of Aoniu Mine's tailing ponds and has achieved satisfactory results. These drills not only enhanced Aoniu Mine's ability to handle emergency accidents and improved its coordinated joint operation mechanism, but also made the emergency plan more concrete and operable.

As an important part of corporate social responsibility, the Group attaches great importance to operation compliance, good faith cooperation, cultural integration, employee care, as well as charity and public welfare, and, as a corporate citizen, continuously expands the breadth and depth of social responsibility fulfillment. On the basis of mid- to long-term planning and fulfillment, we will continue to improve the social responsibility working system, strengthen the responsibility governance and responsibility integration, continue with our pioneering innovations and strive for the maximum of the integrated value of economy, society and environment. We will continue to uphold the tenet of "Safe Mines, Harmonious Mines, Green Mines" and make unremitting efforts to protect our homeland of the "Beautiful Earth".

# **Foreword**

#### About this report

This report is prepared in accordance with Appendix 27 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "**Hong Kong Stock Exchange**") (the "**Listing Rules**") – "Environmental, Social and Governance Reporting Guide". This report mainly summarizes the performance of China Hanking Holdings Limited (the "**Company**") in respect of corporate social responsibility in 2016, covering the gold business, iron ore business and nickel business owned by the Group.

The wordings used in this report having the same meaning as defined in the "Annual Report 2016" of the Company, should be read in conjunction with the "Annual Report 2016" of the Company. This report shall be published both in Chinese and English. Should there be any discrepancy between the Chinese and the English versions, the Chinese version shall prevail. If you have any doubts or suggestions regarding the content of this report, please contact us by phone or email or regular mail. Our contact details are as follows:





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# **Overview**

#### **Corporate introduction**

The Company was incorporated in the Cayman Islands on 2 August 2010, and was listed on the Hong Kong Stock Exchange on 30 September 2011, stock code: 03788.

The Group is an international mining company with three major business segments (i.e. gold business, iron ore business and nickel business). It is engaged in the exploration, mining, processing, smelting and selling of mineral resources located in the Australia, the PRC and Indonesia. Upholding the core value of "people-oriented and business integrity" and adhering to the tenet of "safe mine, harmonious mine and green mine", the Group actively performs the enterprises' social responsibilities.

#### Gold business

The Company operates the Southern Cross Operation Gold Project located at Yilgarn goldfield in Western Australia (referred to as "**SXO Gold Project**" or "**Southern Cross Operation**") through Hanking Gold, a whollyowned subsidiary of the Company. SXO Gold Project has sound production, transportation and infrastructure facilities. Its own processing plant has annual processing capacity of 2.4 million metric tons. In 2015, the SXO Gold Project officially commenced production and recorded a significant increase in output and sales volume through optimization of mining and processing solution. As of 31 December 2016, the amount of gold produced from the SXO Gold Project accumulated to 121,456 ounces, representing an increase of 106% as compared with the year before. After over three years of exploration, development and operation, the gold business successfully increased. In February 2017, the Company entered into an agreement to sell the SXO asset at the sale price based on the enterprise value of AUD330 million. An extraordinary general meeting will be convened on 14 April 2017 to consider and approve the resolution in relation to the disposal.

#### Iron ore business

The iron ore business operates in the Anshan-Benxi iron ore belt of Liaoning Province of China. The Company operates four iron ore mines, namely Aoniu Mine, Maogong Mine, Xingzhou Mine and Shangma Mine respectively through its four subsidiaries including Aoniu Mining, Maogong Mining, Xingzhou Mining and Fushun Shangma. The

Company engages in iron ore exploring, mining, processing and selling. Through technological improvement, Aoniu Mine and Maogong Mine produce iron ore concentrates at an average grade of 69% and 68.5% respectively. The overall annual iron ore processing capacity of our iron ore business could reach 10 million metric tons.





### **Overview**

#### **Nickel business**

The primary business operations of the Group in Indonesia include laterite nickel exploration, mining, smelting and selling and the product is laterite nickel which is mainly used by iron-steel plants as raw material for the production of stainless steel. The Company operates a large laterite nickel mine located in North Konawe Regency, South East Sulawesi Province, Indonesia through three project companies (i.e. KKU, KS and KP). The measured, indicated and inferred nickel resources increased by 90.54 million metric tons through continuous exploration, with an average grade of 0.79% for nickel and an average grade of 50.27% for iron ore. Affected by the raw mine export prohibition policy promulgated by the Indonesia government, the production of relevant mines was suspended in 2016.

# Health, safety, environmental protection and community organization of the Group

The Group has set up the multi-level health, safety, environmental protection and community organization from the board of directors of the Company (the "**Board**") to the production workshops at each mine. The Health, Safety, Environmental Protection and Community Committee under the Board is responsible for leading the works regarding health, safety, environmental protection and community across the Group, including establishing dedicated management organizations under the operation headquarters of gold, iron ore and nickel businesses to manage issues regarding health, safety, environmental protection and community within each business segment, and establishing relevant enforcement organizations and appointing designated staff for each mine and their respective production workshops to enforce and supervise the implementation of relevant policies, while the Company guides and supervises mines. In 2016, the health, safety, environmental protection and organization featured with definite responsibilities, strict implementation and effective supervision.



Health, Safety, Environmental Protection and Community Organization of the Group

#### The Health, Safety, Environmental Protection and Community Committee under the Board

Health, Safety, Emergency and Training Department (the "HSET", which is responsible for work regarding health, safety, environmental protection and community) under the Operation Headquarter of the Gold Business (Led by the President) Health, Safety, Environmental Protection and Community Committee, Production Safety Committee and Operation Management Department (responsible for work regarding health, safety and environmental protection) and President Office (responsible for work regarding community) under the Operation Headquarter of the Iron Ore Business (Led by the President)

Safety, Health and Environmental Protection Committee (responsible for work regarding health, safety and environmental protection) and Society Development Department (responsible for work regarding community) under the Operation Headquarter of the Nickel Business (Led by the President)

HSET (responsible for work regarding health, safety, environmental protection and community) of the Southern Cross Operation Gold Project Mines (Led by the General Manager of the mines) Production Safety Committee and Production Safety Division (responsible for work regarding health, safety and environmental protection) and General Affairs Office (responsible for work regarding community) of Aoniu/Maogong/Benxi/Xingzhou/ Shangma Iron Ore Mines (Led by the General Manager of the mines) Health, Safety and Environmental Protection Department (responsible for work regarding health, safety and environmental protection) and General Affairs Department (responsible for work regarding community) under the nickel ore mines of KS/KKU/KP (Led by the Mining Technology Director)

HSTC Coordinator HSETC Coordinator



Part-time Safety Officer Operation Supervisor Technical Supervisor

# Stakeholders' Involvement

The Company is committed to creating a win-win community for all parties, with an aim to promote the harmony and mutual prosperity between the Company and the associated organizations and individuals including investors, employees, customers, partners, communities, the public and governments (referred to as the "**Stakeholders**"), thereby achieving the maximum of social integrated benefits (including the maximum of enterprise earnings). Therefore, various channels are offered to the Stakeholders for participating in the operation of the Company, as well as understanding and supervising our operation conditions.



In 2016, guided by the tenet of "safe mine, green mine and harmonious mine", the Group made great efforts to build itself into a new modernized mining enterprise featured with harmony, cooperation, development, health, safety, environmental protection, compliance and responsibility, committed to becoming an excellent enterprise which is satisfied by shareholders, favored by employees and recognized by society.

	The Company's Stakeholders' Involvement in 2016					
Stakeholders	Main goals and focuses	Ways and channels of communication and involvement	The Company's actions			
Shareholders and investors	To maintain steady operation, gain profits, protect shareholders' interests and ensure information disclosure is true, accurate and timely.	General meetings, investor information sessions and onsite visits, roadshows, information disclosure (including financial statements) and company contact details.	Issued notices of general meeting and proposed resolutions according to regulations, disclosed company's information by publishing 48 announcements/ circulars and three periodic reports in total in the year. Carried out different forms of investor activities with an aim to improve investors' recognition. Held results briefing once and arranged eight investor relationship activities. Disclosed company contact details on website and in reports and ensured all communication channels available and effective.			
Customers	To assure product quality and quantity and maintain long-term and stable cooperation.	Regular visits and daily communication.	Established laboratory, strengthened quality management to ensure stable production and smooth transportation, and entered into long-term strategic cooperation agreements.			
Governments	To operate and pay taxes according to law, ensure production safety and fulfill social responsibilities.	On-site inspections and checks, research and discussion through work conferences, work reports preparation and submission for approval.	Operated, managed and paid taxes according to laws and regulations, strengthened safety management; accepted the government's supervision, inspection and evaluation (e.g. accepted 17 on-site inspections throughout the year), and actively undertook social responsibilities.			

# Stakeholders' Involvement

	The Company's S	takeholders' Involvement	in 2016
Stakeholders	Main goals and focuses	Ways and channels of communication and involvement	The Company's actions
Employees	To protect their basic rights, offer reasonable welfare and remuneration, provide healthy working environment and development space, ensure occupational health and safety and help to realize their self- value.	Labor unions, communication channels between employees and the management, suggestion boxes, employees' activities, training and learning activities.	Provided a healthy and safe working environment; developed a fair mechanism for promotion; established labor unions at all levels to provide communication platforms for employees; cared for employees by helping those in need and organizing employee activities; built a learning-oriented enterprise by establishing "Hanking Mining Institute".
Communities and the public	To create jobs, promote community development, protect ecological environment and provide compensation and assistance.	Exchange visits between villagers and the Company, co-sponsored community activities, charitable assistance, volunteer service and community building activities.	Gave priority to local people seeking jobs from the Company so as to promote community building and development; built roads, protected the communities' ecological environment, and provided timely compensation and assistance; provided volunteer service, kept communication channels open between the Company and the communities and villagers, co-sponsored community activities to promote the building up of harmonious communities.
Partners	To achieve fairness, justice and openness and maintain our commitment.	Tenders meeting, fairs and daily communication.	Invited tenders fairly to select best partners, performed contracts according to agreements, enhanced daily communication, and established long-term cooperation with quality suppliers and contractors.
Banks	To repay loans on schedule, monitor operating conditions and risks and operate with honesty and credibility.	Work conferences, on-site visits, post- loan tracking and daily communication.	Repaid loans with interests on schedule by instalment, cooperative to the banks' review and supervision on loans.

	The Company's Stakeholders' Involvement in 2016						
Stakeholders	Main goals and focuses	Ways and channels of communication and involvement	The Company's actions				
Peers	To stick to fair play, cooperate to develop, share technologies and experiences and promote development of the industry.	Seminars, exchange visits, negotiations and meetings within industry organizations.	Stuck to fair play, cooperated with peers to realize win-win, shared experiences and attended about a dozen of seminars of the industry so as to promote sustainable development of the industry.				
Market regulators	To comply with regulatory requirements, ensure compliant operation and timely information disclosure and reporting.	Consulting, information disclosure, reporting and filing.	Complied with regulatory requirements in a strict manner, disclosed and reported true information in a timely and accurate manner according to law.				

#### Minutes of Stakeholders Activities for 2016

#### 1. Shareholders and investors

The Company regularly carried out communication with the financial sector including analysts, fund managers and other investors, and also encouraged the shareholders to attend and vote at the general meetings, either in person or by proxy.

Details on shareholder communication policy are available on the Company's website (www.hankingmining. com).

In 2016, the Company held nine one-to-one meetings with the investors to discuss the current condition and prospect of the mining industry in China and the business development of the Group.

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# Stakeholders' Involvement

#### 2. Customers

The Company is located in close proximity to its key customers, which allows it to connect with customers closely through everyday communications in various forms like phone calls, emails, on-site exchanges and visits. In the meantime, our iron ore business has established dedicated offices in the plant area of its key customers to facilitate direct and instant communications with them, which is beneficial to our stable cooperation for the long run.

#### 3. Partners

The Company and suppliers held meetings to discuss ways to enhance customer participation and share win-win strategies. The Group and its member companies attached emphasis on compliance with international and local laws and regulations, and required the suppliers to abide by the regulations based on the UN Global Compact, including non-discriminatory hiring and employment practices, a safe and healthy workplace, compliance with regulations on environmental protection and prohibition of child labor.

Regular communication between the Company and the suppliers is very important. In 2016, the Company held eight tendering conferences.

#### 4. Governments

#### Gold business

In 2016, the Department of Mineral and Petroleum of Western Australia conducted nine on-site inspections on the companies and mines engaged in gold business, including inspection on mechanical and electrical aspect, general compliance and examination at the headquarters, processing plant and mines of Marvel Loch, and review on the compliance of the reports. The Company had provided all information required for the review on general compliance and examination of the processing plant.

#### Iron ore business

In 2016, our iron ore business accepted three times of inspection, examination and research from Chinese governmental departments in terms of safety in production, tailing pond security, flood prevention and other respects. After the examination and research, the Company actively implemented the opinions given by the governmental departments and reported the results for feedback in a timely manner.

#### Nickel business

In 2016, our nickel business accepted five times of examination and research from Chinese and Indonesian government departments, including the inspections and examinations on KS, KKU mines, Jetty BSM, refineries and terminals by Liaoning Provincial Development and Reform Commission, Bureau of Forestry of North Konawe Regency, Indonesia, the port authority and the police department in terms of development at the mines, construction of the refineries, occupation of forest and land, security at the mining areas and condition of the terminals.

#### 5. Employee appeal

In 2016, employees and staff association of the Group did not raise any appeals in relation to remuneration packages, holidays, working and living environment, health and safety security, training and economic assistance and other aspects.

#### 6. Communities and the public

Please refer to the section headed "Community Involvement" of this report.

#### 7. Banks/financial institutions

In 2016, the Group held 26 business meetings with a total of 65 representatives from 25 banks and financial institutions, which had carried out 11 site visits to the mines. The Company actively cooperated with the banks and financial institutions in performing follow-ups on the loans including follow-up phone calls, visits, provision of information, site visits to mines, enquiry and other forms, as well as replied their questions promptly and provided information and data as required.

#### 8. Industry peers

In 2016, the Company actively attended various meetings within the mining industry to reinforce its communications with peers, share its experience, gain insights into industrial dynamics and trends, drive the sustainable development of the industry and promote the Company, and invite industry peers to visit the Company. The major exchange activities are set out in the table below:

ltem	Date	Industry exchange organization	Description
1	2 to 3 March 2016	China Iron Ore 2016 (2016中國鐵礦石會議)	Mr. Pan Guocheng attended on behalf of the Company.
2	4 to 6 April 2016	the Annual Mines and Money (Hong Kong) Conference and Exhibition(礦業與財富(香港) 高峰論壇暨展覽會)	Mr. Pan Guocheng attended on behalf of the Company, made a speech on "Iron Ore Market Environment and Outlook in China".
3	7 to 9 April 2016	The 12th Steel Development Strategy and Supply and Demand Conference (第十二屆鋼鐵 產業發展戰略暨鋼鐵產品產 需研討會議)	Mr. Pan Guocheng attended on behalf of the Company.
4	6 May 2016	Conference on pledging via Financial Products and foreign currency forward contracts for iron ore futures and iron ore enterprises	Mr. Yang Jiye attended the conference jointly organized by the Company, Cinda Futures Co., Ltd. and China Merchants Bank Dalian Branch on behalf of the Company.
5	22 June 2016	Working Conference of the Working Committee for the Promotion of Green Mines (綠色礦山促進工作委員會 工作會) at Northeastern University organized by China Mining Association	Mr. Yang Jiye attended on behalf of the Company.

#### Exchange activities between the Company and industry peers in 2016

# Stakeholders' Involvement

Item	Date	Industry exchange organization	Description
6	13 to 15 June 2016	J.P. Morgan Global China Summit (摩根大通全球中國 峰會)	Mr. Pan Guocheng attended on behalf of the Company.
7	12 July 2016	11th Annual Conference of Mineral Processing (第 十一屆選礦年評會議) at Northeastern University attended by experts and scholars of the mining industry	Mr. Yang Jiye attended on behalf of the Company.
8	25 to 27 July 2016	2016 China Gold Congress (2016中國國際黃金大會)	Mr. Pan Guocheng attended on behalf of the Company.
9	27 to 29 August 2016	2016 China International Gold Mining Technology Summit Forum (2016中國 國際黃金礦業技術高峰論 壇)	Mr. Pan Guocheng attended on behalf of the Company.
10	25 to 27 September 2016	2016 (18th) International Mining Conference of China (2016 (第十八屆)中國國際 礦業大會)	Mr. Pan Guocheng attended on behalf of the Company.
11	24 to 26 October 2016	2016 (2nd) Nieba Annual Nickel Summit & Stainless Steel Sourcing Fair (2016 (第二屆)鎳吧年會暨不銹鋼 採購會)	Mr. Pan Guocheng attended on behalf of the Company, and made a speech on "Experiences from the Indonesia Project of Hanking and Nickel Market Outlook".
12	29 to 30 November 2016	China Tungsten Industry Development Forum (中國 鎢業發展報告會)	Mr. Pan Guocheng attended on behalf of the Company.

#### 9. Market regulators

In 2016, the Group received eight letters in relation to the Group from the Hong Kong Stock Exchange and the SFC, and the Company replied promptly and provided corresponding information as required.

#### Health and safety

Upholding the tenet of "Safe Mine", the Group attaches great importance to occupational health and safety. The Group has set up dedicated organizations with specialized personnel, and has developed relevant systems and operating procedures. Through continuous fund investment, technology upgrading and implementation of supervision and appraisals, the Group spared no efforts to enhance safety awareness, so as to ensure health and safety production.

In 2016, the Group continued to enhance management and control over safety and health risks, and achieved the annual target of **zero death** of our employees with the accident rate keeping at a reasonable level.

	Breakdown of accidents incurred by the Group					
Production safety indicator	Accidents	Description	Lost days			
Pollution accidents	2	2 reportable environmental incidents occurred in the gold business, including 1 salty water leakage and 1 mineral processing waste leakage respectively, which did not have any impact on the environment. Remedial and cleaning measures were taken once the incidents were identified, and precautionary measures have been implemented in all places with potential risks to prevent such incidents. Details on the above incidents were set out in the 2016 Environmental Report to the Department of Environmental Resources (DER).	-			
Fire accidents	0	-	-			
Minor injuries	53	57 staff were slightly injured in the gold business with slight finger cut, joint sprain, muscle strain, something in the eye, loss of finger-nail, slight burn in the face etc. There was no casualty, and damage to property amounted to approximately AUD140. Medical care was provided promptly in above incidents.	-			
	2	2 staff were slightly injured in iron ore business, including a staff falling into the pump sump during inspection of the equipment and a forklift encountering an overturn accident. There was no casualty, and damage to property amounted to approximately RMB65,000. Medical care was provided promptly in both incidents.	95			
Serious injuries	4	4 staff were seriously injured in the gold business with cuts on the back of hand and fingers, ankle sprain and back ache when moving heavy items. Medical care was provided promptly in these incidents.	34			
Deaths	0	-	-			

Note: The accident data set out in the above table were calculated in accordance with the standards as specified by the local government departments, and the applicable security test standard of Australia was applied to the gold business.

The Group has adopted the following occupational health and safety measures as well as the relevant implementation and monitoring approaches, so as to maintain a healthy and safe working environment.

#### Dedicated organization and personnel

The health and safety working organizations at all levels of the Group from the Board to the production workshops at each mine have been set up and are responsible for the implementation and monitoring of health and safety work, constituting a multi-level health and safety management system and organizational structure as well as a comprehensive fleet of competent personnel. Please refer to the organizational chart on page 9 of this report for details.

#### Systems and procedures

The Group has developed and strictly implemented several health and production safety management systems, position responsibility systems and operating procedures, so as to institutionalize health and safety management, standardize operating procedures and clarify responsibilities.

In 2016, in order to clarify safety production responsibility and enhance the safety production reward and punishment mechanism, the iron ore business formulated and issued the 2016 Safety Production Objective Assessment Measures (《2016年度安全生產目標考核辦法》) and Basic Management Measures on Safety and Environmental Protection of the Mines (《礦山安全環保基礎管理達標辦法》), and signed the Letter of Commitment on Safety Production Objective (《安全生產目標責任狀》) with staff at all levels, and have completed filing procedures with the operation management department.

The Group implements occupational health system by providing physical examination for employees every year, especially occupational diseases examination for those exposed to dust, toxic and hazardous materials, and monitoring the occupational health at workplace, so as to provide a scientific basis for the proper prevention and treatment of occupational diseases. Some mines have engaged on-site doctors, while mines without onsite doctors maintain constant touch with local hospitals to ensure timely treatment for injured or sick employees. The Group implements the "three simultaneous" system for occupational health in a construction project (i.e. the occupational diseases prevention facilities in a construction project must be designed, constructed and put into use simultaneously with the main project). In 2016, Aoniu Mine invested RMB32,500 and took two days to conduct physical examination for 161 staff who were exposed to dust, and Maogong Mine conducted physical examination for 113 staff.

The Company implements the "5S Management Provisions" and issued the "5S Management Provisions on Production and Operation Sites" (《生產作業現場5S管理制度》) on 1 July 2016. The Company regularly cleans and reorganizes offices, workshops and living areas, and prohibits smoking and drinking liquor in the above areas, with an aim to maintain a clean, tidy, smoke-free, non-toxic, non-hazardous, healthy and safe working environment.

#### Awareness

In order to enhance the employees' health and safety awareness, the Group organizes trainings every year, holds regular safety work meetings, reminds employees of safety before work every day, promotes safety activities month and safety lectures, organizes safety knowledge contests and operation skill competition of major jobs, and sets up safe and healthy work bulletin, safety warning signs, banners and slogans, etc. The employees are trained to be aware of "four do not hurt": do not hurt others, do not hurt themselves, do not be hurt by others and protect others from being hurt.

Our rates of "three-level" safety education training for newly-recruited employees and all employees, attendance with special operation certificate, implementation of safety instructions and rectification of accident risks as well as other rates have reached 100%.

In 2016, 984 employees have received safety education in iron ore business (internal training), and 66 safety managers and 66 employees for special operation were trained with corresponding courses. Among which, 7 and 21 safety managers in Aoniu Mine attended the initial and review sessions respectively as well as 8 and 29 specialized operators attended the initial and review sessions respectively; In Maogong Mine, there were 6 and 18 safety managers attending the initial and review sessions respectively, with 5 and 19 specialized operators taking the initial and review session; In Xingzhou Mine, there were 5 safety managers attending the review session; In Xingzhou Mine, there were 5 safety managers attending the review session, with 2 specialized operators taking the initial session. Such trainings intensified the professional safety education and imbedded safety awareness into the mind of employees.

#### Technical measures

The Group protects the employees' health and safety through the adoption of effective technologies, measures, equipments and other means.

The Company provides labor protection appliances like safety helmet, safety shoes, reflective vest, protective goggles, earplugs, mouth masks, respirators, uniform for special purpose, dustproof masks, acid-proof gloves and back splint, etc. to the staff, and appointed safety officer to supervise and check the using and wearing of such labor protection appliances. The Company also equips fire-fighting equipment in flammable sites, and constructs security fences along the roads for ore transportation to prevent accidents.

For the gold business, all vehicles in the gold mine have a first aid kit for emergency treatment in case of occurrence of accidents. In addition, all employees use wireless interphone in the whole mining area so as to avoid potential dangers.

The "Six Major Systems" for underground operation safety and refuge in respect of the phase two underground mining project of Aoniu Mine and No.4 Mining Area of Shangma Mine (production suspended at present) have been developed and put into use, while the construction of the "Six Major Systems" for underground mining project of Maogong Mine is underway. The "Six Major Systems" can monitor and supervise the underground mining environment, locate and communicate with underground personnel, and, in combination with other refuge and self-help systems, can assist underground personnel in safety, refuge and self-rescue issues, so as to protect their health and safety.

**Implementation of the construction of national class A production safety standardized enterprise** According to the requirements of the document [2014] No. 2 issued by Fushun County Safety Supervision Bureau, the processing plant of Maogong Mine participated in implementing the construction of national class A production safety standardized enterprise, and has signed a class-A standardization consulting contract in September 2014. Later, in October of the same year, Maogong Mine commenced the preparation for class-A standardization.

Based on the standardization grade criterion, Maogong Mine conducted the preparation work from 11 aspects, including safe production guarantee, risk management, safety education training, production process system safety management, mechanical and electrical safety management, on-site safety management, occupational health management, check, emergency management, investigation report on and analysis of accidents and events as well as performance measurement and assessment.

Currently, the processing plant of Maogong Mine has invested RMB100,000 for class-A standardization and has completed data collection and information input covering 237 items of 11 categories. It is estimated that the preparation work for class-A standardization of the processing plant will be completed in 2017.

#### Thematic activities in the month of production safety

The country's fifteenth production safety month was held as scheduled in June 2016. By focusing on the theme of "enhancing enterprises' awareness of safety development and improving overall safety quality", all mines operated by the iron ore business organized thematic activities in the month of production safety.

In order to give guidance on the organization of activities, steering groups have been established by the Company, while each mine has also set up the leading group led by their respective general manager, and corresponding activity plans have been formulated.

During the period, great efforts were made by each mine to eliminate potential hazards at the working sites. A total of 333 potential hazards were eliminated, of which 143, 173, 12 and 5 potential hazards were eliminated by Aoniu Mine, Maogong Mine, Shangma Mine and Xingzhou Mine, respectively, all of which have been rectified in June with a rectification rate of 100%.

In the month of production safety, each mine strived to cultivate a strong atmosphere of production safety by means of putting up posters, hanging banners and organizing employees to watch the Warning Educational Film for Typical Accidents of Non-coal Mines (《非煤礦山典型事故案例警示教育片》), in order to instill the theme of "enhancing enterprises' awareness of safety development and improving overall safety quality". Benxi Mine also organized subject tests on production safety for its employees who stayed on post. Through organizing a variety of activities, the safety quality of employees at all levels was improved, laying a solid foundation for the Company's safety management.

In order to cultivate corporate safety culture and enhance employees' safety awareness, Aoniu Mine hosted the Third "Ankang Cup" Thematic Speech Contest (第三屆[安康杯]主題演講比賽) under the theme of "commitment to safety development" (「爭做安全發展忠誠衛士」) on 28 June 2016. A total of 14 employees from different workshops have participated in the contest, and Kang Kai from the Production Safety Division won the first prize in the contest. The speech delivered by each participant not only fully interpreted the meaning of safety and life, but also reminded each of us to keep safety awareness at all times. Leveraging on a good atmosphere created by the speakers, the organizer also organized audiences to watch the propaganda video of "How to use and wear safety protection equipment" (《如何正確使用佩戴安全防護用品》) during the intervals of the contest and has achieved satisfactory results.

#### Supervision and assessment

The Group develops and implements a number of supervision, inspection and assessment systems, conducts regular and unscheduled inspections and assessments, including quarterly, monthly, weekly, daily, occasional and mutual safety inspections, so as to timely detect and effectively rectify all kinds of safety risks. The Company keeps controlling major hazards such as explosives magazines, oil storage and tailing ponds, monitors safety information of all locations of mines (including mining yards, processing plants, workshops, sedimentation tanks, waste dumps, topsoil, etc.), and performs safety oversight over contractors. 969 safety inspections have been conducted regarding iron ore business throughout the year. Operation management department conducts inspection quarterly, production safety division conducts inspection monthly and workshops conduct inspection for 4 times every month. 52 safety inspections have been conducted regarding nickel business throughout the year. As to gold business, such inspection is done once a month. In addition to self-examinations and checks, the Company actively cooperates with government authorities in health and safety inspections, and regularly reports to the government. All workshops actively rectified safety risks, which were subject to review by safety inspectors, achieving a rate of safety risk rectification and safety instruction implementation of 100%.

The Group continues to carry out strict safety production responsibility assessment. The Group has implemented the "one-vote veto safety system". The effectiveness of safety production is linked to individual economic benefits, promotion and appraisals, and the Group strictly implements the provisions of reward and punishment. In 2016, the nickel business has paid IDR1,500,000 for the safety assessment reward, with no fine imposed against behaviors violating the safety regulations throughout the year. A fine of RMB27,300 for the iron ore business was imposed against behaviors violating the safety regulations.

#### Fund insurance

The Group ensures the fund investment in health and safety and sets aside safety measure fees exclusively for health and safety protection purpose every year. In 2016, the iron ore business invested RMB46,330,897.88 for safety measures, the nickel business invested IDR16,600,000 for safety measures, while the gold business safety measure fees amounted to AUD28,846.

#### Emergency response drill

In 2016, the Group organized emergency response drill in accordance with the relevant regulations. The gold business held four emergency response drills, and the iron ore business held four emergency response drills.

On 6 May 2016, Maogong Mine organized its mining staff to participate in a fire drill. The drill was carried out on the assumption that a mountain 1,200 meters away from the working site was caught on fire. The staff participated in the drill were divided into four teams, each team consisting of 7 members and equipped with fire extinguishers of 4 kilograms.

In light of the weather condition in 2016, the Production Safety Division of Aoniu Mine organized members of the emergency management division to re-watch such videos as Special Drill on Tailing Ponds Emergency Response Plan by Aoniu Mine (《傲牛尾礦庫應急預案專項演練》)

and Emergency Response Drill for Roof-fall Accidents in Underground Mine by Aoniu Mine (《傲牛地採冒頂事故現場處置方案演練》) in June 2016. In addition, the Production Safety Division organized desktop maneuvers for emergency rescue plan of 2016 on the hypothetical scenario of flood overtopping of Aoniu Mine's tailing ponds and has achieved satisfactory results. These drills not only enhanced Aoniu Mine's ability to handle emergency accidents and improved its coordinated joint operation mechanism, but also made the emergency plan more concrete and operable. The underground mining workshop of Aoniu Mine also organized emergency drill for underground water inrush based on its own characteristics and seasonal characteristics and has achieved favorable results.

On 21 June 2016, the emergency rescue drill for non-coal mines of Fushun County was carried out at the waste dump of Maogong Mine. More than 40 government officials in charge of work safety issues from Fushun County and Fushun City as well as over 60 employees of Maogong Mine have participated in this drill. This drill was







carried out on the assumption of localized landslip of Maogong Mine's dump and the whole process took about 22 minutes. During the drill, the team was well organized with clearly-defined duty for employees at all levels. This drill was considered a complete success. Through this drill, the ability of each department to respond to emergency accidents was further improved.

In December 2016, the "Fire Evacuation, Escape and Fire Extinguishment Drill" (消防疏散逃生和滅火演練) was carried out at the underground mining building of Maogong Mine. The whole drill comprised two parts, namely "Fire Escape Drill" and "Methods for Extinguishment of Early Fires". This drill not only offered the staff of Maogong Mine an opportunity to have firsthand experience of safe escape from fire disasters and fire extinguishment, but also enhanced the staff's awareness of fire prevention and their emergency handling ability in the face of fire disasters.

#### Working environment

Adhering to the philosophy of "human oriented", the Group is committed to providing a favorable working environment for employees to protect their health and safety. The Company also encourages the employees to exert their creativity and potential and to align personal development with enterprise growth, so as to promote mutual development between individual employee and the enterprise.

#### Equal opportunity

The Group provides equal opportunities for employees in all aspects with a view to create a fair and nondiscriminatory working environment. Female employees are equally entitled to any opportunities as male employees, and shall not lose their jobs or deserve a pay cut due to maternity. Nobody should be discriminated in term of recruitment and career development due to their religion and race. Furthermore, the Company has adopted a policy, whereby employees shall abstain from any matter relating to their family relatives, with an aim to create a fair competition environment and to avoid negative impacts of nepotism so as to maintain impartiality of management.

#### Diversity

With the diversified development of our business, the Group recruited employees with diversified backgrounds. The table below presents the distribution of our employees by nationality or region:

Distributio	Distribution of our employees by nationality or region in 2016						
Nationality or region of employees	Number of employees	Percentage of total workforce	Loss of employees	Turnover rate			
Mainland China	1,122	88.70%	52	3.49%			
Hong Kong, China	1	0.08%	2	0.13%			
Australia	98	7.75%	18	1.21%			
Indonesia	44	3.48%	10	0.67%			
Total	1,265	-	82	5.51%			

Note: turnover rate = loss of employees (i.e. the number of regular employees voluntarily resigned) ÷ annual average workforce of the Company (1,489)

Among which, the annual average workforce of iron ore business, gold business and nickel business amounted to 1,295, 100 and 75 respectively, while the annual average workforce of headquarters reached 19.

#### Recruitment

The Group attracts talents in accordance with the principles of openness, equality, competition and competitive selection. As of 31 December 2016, the Group had a total of 1,265 employees, and all of the positions are assumed by "occupational and professional" persons.

Breakdown of employees of the Group in 2016 (by employment category)					
Employment category	Number of employees at the end of the year	Percentage of total workforce at the end of the year	Loss of employees	Turnover rate	
Functional management	169	13.36%	17	1.14%	
Mining production	325	25.69%	22	1.48%	
Processing production	504	39.84%	14	0.94%	
Smelting production	9	0.71%	19	1.28%	
Others	258	20.40%	10	0.67%	
Total	1,265	100%	82	5.51%	

Note: turnover rate = loss of employees (i.e. the number of regular employees voluntarily resigned) ÷ annual average workforce of the Company (1,489)

Breakdown of employees of the Group by gender and age in 2016					
Gender and age	employees at the	Percentage of total workforce at the end of the year	Loss of employees	Turnover rate	
Male					
30 and under	191	15.10%	18	1.21%	
31-40	306	24.19%	29	1.95%	
41-50	348	27.51%	9	0.60%	
51 and above	264	20.87%	6	0.40%	
Sub-total	1,109	87.67%	62	4.16%	
Female					
30 and under	36	2.85%	5	0.34%	
31-40	57	4.51%	5	0.34%	
41-50	53	4.19%	7	0.47%	
51 and above	10	0.79%	3	0.20%	
Sub-total	156	12.33%	20	1.34%	
Total	1,265	100%	82	5.51%	

Note: turnover rate = loss of employees (i.e. the number of regular employees voluntarily resigned) ÷ annual average workforce of the Company (1,489)

#### Remuneration and benefits

The remunerations of senior management in the gold business comprise basic salary and annual bonus, while general staff receive fixed salary. The remunerations of employees in the iron ore business comprise expected post-based salary (basic salary and performance-linked salary) and reward (variable bonus and reward/punishment amounts); the remunerations of middle and top level employees in the nickel business comprise basic salary, monthly performancelinked salary and annual bonus, while general staff receive fixed salary. The Company adjusts such remunerations in accordance with the operational results, the value of employee positions, individual capability and performance, the level of social development and other factors.



The Company pays social insurances as well as provides food, accommodation (non-local employees), and transportation and communication subsidies for the employees. In 2016, the total remuneration and benefit paid to the employees of the Group amounted to approximately RMB112,503,000.

In order to enrich the employees' leisure life and enhance their physical and mental health, the Group organizes physical examinations and tours every year and held various cultural, sports and social activities for the employees. The Company also has staff recreation rooms with books, entertainment and fitness facilities, etc.

In 2016, the Group continued to promote corporate culture with a view to enhance the employees' sense of the corporate mission and the acknowledgement of the operation philosophy of the Company. The Company organized various cultural and sports activities, advocated frontline training and held exchange activities among internal trainers ("**Internal Trainers**") and for Hanking Mining Online Education Institute, so as to enrich the cultural and sports life of the extensive employees, enhance the cohesion effects of the Company to the employees and broaden the communication channels between management at different levels and front-line employees.

Safety Weekly, a weekly magazine edited by Aoniu Mine, was officially published in July 2016. The editorial office encouraged our employees to contribute articles. The editors are part-time staff from various posts of different departments. Through collective participation in the preparation of the magazine ranging from article contribution, paper selection and modification to design, it helped to strengthen safety education and enhanced the comprehensive cultural attainments of our staff.

#### Promotion and dismissal

The Group provides equal promotion opportunities for the employees. The Company has set up paths of promotion for all positions. Combined with the requirements of each position and capabilities of each employee, the Company offers a platform for the ambitious, competent and hardworking employees to demonstrate their talents and make their dreams come true.

The Company realizes the importance of talents to the development of an enterprise, and exerts every effort to retain core talents. The iron ore business arranged meetings between the president and the cadre employees on a regular basis, to discuss their career development and planning as well as problems at work, with an aim to prevent loss of the cadre employees.

In 2016, the turnover rate of our employees was 5.51%.

#### Working hours and holidays

The Group recognizes that a proper balance between work and rest helps employees to realize their full potential. The Company strictly complies with the provisions regarding working hours and holidays under the law of the places where each business operates. The administrative departments at the headquarters of the Company adopt a five-day week working pattern with eight working hours a day. The production departments at each mine work in shifts with consideration of the actual production conditions. The Company provides personal leave, sick leave, marriage leave, compassionate leave, maternity leave, work injury leave, home leave and paid annual leave for the convenience of the employees to balance their work and life.

#### IT application

The Group spared no efforts to implement information system covering the whole group. Based on its existing IT infrastructures, the Group greatly improved its work efficiency through constantly optimizing IT system, improving data collection and analysis ability, strengthening control of key processes and managing production and operation information in a timely, accurate and efficient manner.

In 2016, further efforts were made by the iron ore business to strengthen mine digitized construction, including application of modern software technology to improve three dimensional modeling of reserve trend, woodland and land management, pit condition and processing plant monitoring as well as the monitoring system. A variety of working procedures and systems have been properly streamlined and modified, which have been standardized and monitored by the office system. A platform has been established to share resources and information within the whole group, which has improved the management and working efficiency of the Group. The application of mine management system and project management software has played an important role in full production cycle control and engineering project management, and has greatly cut down the production and operation costs.

#### **Development and training**

The Company understands that the improvement of the overall quality and professional skills of all staff not only means the improvement of the staff's ability, but also the enhancement of the Group's overall competitiveness. The Group pays much attention to the employees' development and training, and has developed and implemented the training management system, training system and process in respect of its employees, with an aim to promote the improvement of both employees and the Company.

#### **Trainings for Directors and Management**

The Company places great emphasis on trainings for directors and management, and requires its directors to learn Guidelines on Disclosure of inside Information issued by the SFC and training materials provided by the Stock Exchange. The company secretary shall attend not less than 15 hours of professional training courses every year. In addition, a variety of training programs and seminars have been organized by the Company.

On 26 May 2016, all directors and management of the Company attended the special training courses on risk management and internal control organized by auditors of Deloitte Touche Tohmatsu Certified Public Accountants Ltd..



On 27 May 2016, a seminar under the theme of "Mineral Resources Selection for Future Development in the Era of Big Consumption" (在大消費背景下選擇哪些礦種作為未來方向) was held by the Company with Mr. Wang Anjian, an independent non-executive director of the Company, as the presenter and all directors have attended the seminar.

#### Hanking Mining Institute

"Hanking Mining Institute" was established on 10 November 2014 and welcomed its first course on 10 February 2015. It aims to promote the accumulation, management, dissemination and updating of knowledge and experience within the Company, so that the employees can learn and gain more knowledge, the in-house communication and understanding can be enhanced and the work efficiency can be improved. Although "Hanking Mining Institute" is a virtual body, it has specific organization and functions. Staff with extensive experience in specific areas act as Internal Trainers, while other employees accept trainings as students, which not only helps the Internal Trainers in experience summing-up and self-learning, but also promotes the in-house exchange of knowledge and experience, thus driving company-wide learning. Though the trainers of "Hanking Mining Institute" are acted by our full-time employees, it is able to provide practical help in learning as those trainers have extensive practice.

#### Organization Chart of Hanking Mining Institute



#### **Internal Trainers**

The Company has initiated the construction of an "Internal Trainer team" in order to support the implementation of the Company's strategies and human resources development plan, develop and utilize the in-house intellectual resources, pass on management and technical experience, disseminate the enterprise culture of Hanking Mining, create an atmosphere of knowledge sharing, further improve the training system, as well as provide staff with a platform to practice and develop. Iron ore business has developed Internal Trainers system and built a team of Internal Trainers. With 17 formal Internal Trainers and 4 candidates for Internal Trainers, the team can provide courses regarding management, technical skills, legal affairs and production at present. All Internal Trainers are selected from the Company's key employees and divided into junior, intermediate, senior and honorary Internal Trainers based on their training capabilities. The Company conducts assessment, training and evaluation on the Internal Trainers to grant promotion and incentives, and encourages them to improve their capabilities and provide training.

The yearly progress and works of "Hanking Mining Institute" in 2016:

#### 1. The training contents of Internal Trainers:

No	Training courses	Name of Internal Trainer	Level of Internal Trainer	Level of training	Training hours/ class	Number of participants	Total training hours (hours)
1	5S management at workplace	Liao Bin	intermediate	At Company level	3	29	87
2	Introduction of internal control system	Meng Fanming	Senior	At Company level	4	48	192
3	Transition from business tax to value-added tax	Tong Bing	Senior	At Company level	4.5	32	144
4	Safe driving in winter	Chen Xuefeng	Junior	At department level	1	15	15
Total					3.53	124	438

In 2016, the Group provided its employees with a variety of targeted trainings.

Details on trainings provided by the gold business of the Group are set out in the two tables below:

Trainir	ngs provided by the gold business in	n 2016 (by trainin	g content)	
Name/type of courses	Course content	Cumulative training hours	Cumulative number of participants	Percentage of cumulative number of participants to the average of the total workforce
Induction training	Induction safety training	147	98	98%
Professional skills	Software and professional knowledge training	224	9	9%
Professional skills	Skill training for electricians	140	6	6%
Professional skills	Training regarding environmental protection	490	20	20%
Professional skills	Skill training for field drivers	14	16	16%
Professional safety education	Skill training for safety officers	24	2	2%
Professional safety education	Emergency response training	2,096	20	20%
Professional safety education	Safety skill training for personnel at processing plants	1,024	56	57%
Total		4,159	227	227%

Note: 1. The average number of employees for the gold business was 100 in 2016.

Breakdown on trainings provided by the gold business in 2016 (by employee category)					
Employee category	Number of employees trained	Average training hours	Percentage of participants to the average of the workforce		
Senior management	1	24	1%		
Middle management	8	2	8%		
General staff	89	10	89%		
Total	98	36	100%		

Details on trainings provided to the employees of iron ore business of the Company are set out in the four tables below:

Tra	ainings for employees at the	e headquarter	of iron ore bus	siness of the Co	mpany in 2016 (	by training conte	ent)
Name/type of trainings	Training content	Internal/ external trainings	Cumulative training hours	Cumulative number of trainings	Cumulative number of participants	Percentage of cumulative number of participants to the average of the total workforce	Whether or not subject to assessment and assessment results
Professional safety education	"Three-levels" safety education training and safe operation practices	Internal	87	1	29	29%	Yes
Professional skills	Operation skills for each type of worker	Internal	40	8	1	1%	No
General management	Financial and administrative management	Internal	351	3	95	32%	Yes
Total			478	5	125	62%	

Note: The average of the total workforce at the headquarters of iron ore business was 100 in 2016.

# Breakdown on trainings for employees at the headquarter of iron ore business of the Company in 2016 (by employee category)

Employee category	Number of employees trained	Average training hours	Percentage of participants to the average of the total workforce
Senior management	6	1.92	4.80%
Middle management	24	3.83	19.20%
General staff	95	3.93	76.00%
Total	125	3.82	100%

Details on trainings provided by the iron ore business of the Group are set out in the two tables below:

Trainings provided by the iron ore business in 2016 (by training content)						
Name/type of trainings	Training content	Internal/ external trainings	Cumulative training hours	Cumulative number of trainings	Cumulative number of participants	Whether or not subject to assessment and assessment results
Professional safety education	"Three-levels" safety education and safe operation practices	Internal	5,864	29	2,362	Yes
Professional skills	Operation skills for each type of worker	Internal	118	2	64	No
Total		Internal	5,982	33	2,468	

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Breakdown on trainings provided by the iron ore business in 2016 (by employee category)					
Employee category	Number of employees trained	Average training hours	Percentage of participants		
Senior management	0	-	0.00%		
Middle management	49	2.63	1.99%		
General staff	2,419	2.42	98.01%		
Total	2,468	2.42	100%		

In 2016, there is no human and business training for the nickel business.

#### Labor standards

The Group strictly complies with the labor standards of the places where each business operates and prohibits the recruitment and use of child labor, so as to protect the health and safety of our employees. The Group also regulates labor management and prohibits forced labor, in an effort to enhance the management of occupational health. The Group has never recruited or used child or forced labor.

# Environmental Protection

Upholding the tenet of "Green Mines", the Group takes the environmental protection and restoration measures and has made great efforts in reducing the impact of production and operations on the environment by recycling and conserving energy and reducing emissions, striving to build "environment-friendly" mines.

#### **Environment and natural resources**

The Group has made great efforts in promoting the construction of the mine environment, strives to build modernized ecological mines, and aims to achieve the targets of energy conservation and emission reduction as well as cleaner production and mitigate impacts of production activities on environment by ways of recycling and technology upgrade. Report on environmental impact assessment is prepared for each operating project which will not commence until such report is reviewed and passed by professional experts, so as to minimize the impact of the operating project on the environment.

To carry out mining activities, the Group needs to occupy part of the land, but after the mining is completed, the Group will restore the land and vegetation through land reclamation and revegetation measures. The Group's mining activities also consume a lot of mineral resources. Therefore, the Group tries to reduce the consumption of mineral resources by improving the rates of resource utilization, extraction and recovery. Meanwhile, the Group keeps discovering new mineral resources through exploration activities, resulting in an increase of our mineral reserves.

The Group complies with all environmental protection laws and regulations of each location where the Group operates, takes necessary environmental protection measures, fulfills the responsibility of restoration of mine environment, and prepares and implements the plans for protecting, restoring and treating the mine environment. The restoration of the geological environment at the mine sites goes well. No major geological disasters have occurred in recent years.

#### Revegetation and reclamation

In order to mitigate the damage of stripping activities to land surface, the gold business clearly defines in which area the vegetation will be removed to prevent unnecessary removals, and takes necessary measures to reduce the impact on rare plants.

The gold business completed the phase I and II earthwork and sowing project for Conishman's tailing storage facility ("TSF") and waste rock dump ("WRD") in 2016, with a reclamation area of 36 hectares. The reclamation project for Axehandle was carried out after December 2016.

As required by the government, the iron ore business carries out the construction of "green mountain project", all mines takes the measure of revegetation and planting trees around the area of plants. By the end of 2016, the area of forest land reclamation had reached approximately 269.84 mu. The mining methods of some mines were transformed from open-pit mining to underground



mining, which reduced the waste rock, and significantly reduced the ecological harm like land occupation, environment pollution, water and soil erosion and plants destruction caused by tailing and waste rock piling. We restored some vegetation in waste rock dump of Maogong Mine, and gradually restored the ecological environment of mining area, which is crucial to protecting the ecological environment of mining area. In 2016, Aoniu Mine completed land reclamation and revegetation with an area of approximately 65.58 mu and planted 29,336 trees; Maogong Mine completed land reclamation and revegetation with an area of approximately 144.11 mu, of which land reclamation with an area of 8.562 mu and revegetation with an area of 135.548 mu, and planted 95,000 trees; and Shangma Mine completed land reclamation and revegetation with an area of approximately 60.15 mu and planted 18,000 trees.

### **Environmental Protection**

The geological environment treatment project resolved the environmental and geological problems of the mines, improved and restored the ecological condition as well as recovered the use value of the land, which in turn improved the living environment for the local residents. Remedy was made to the damaged mine body through backfill and slope protection to ensure slope stability and eliminate potential geological hazard. Site preparation and reclamation were conducted to restore the basic function of the land. Revegetation was carried out to restore the ecological function of the mines, so as to improve the ecological condition of the mines.



Fushun Hanking Forest Farm Limited, a subsidiary of the Group, is responsible for the revegetation

and reclamation of the iron ore business as well as the integrated development and utilization of idle forest and land. It has established nurseries and farms at the mine, nurtures seedlings for reclamation, plants green organic vegetables and breeds livestock.

For the purpose of reclamation, the nickel business planted over 700 trees, over 100 fruit trees and completed lawn revegetation with an area of 270 square meters in the camp, and cultivated vegetables with an area of 0.7 mu to satisfy part of their daily needs for vegetables.

#### Environment monitoring, management, investigation, assessment and report

The Group regularly monitors the water quality, air quality and noises in mines, and strengthens the monitoring, investigation, assessment and reporting on the ecosystem of the production operation zones, in order to prevent any environmental accident.

#### 1. Gold Business

In 2016, supervisory activities to water quality and air quality and noise controlling conducted under the requirement of local laws and regulations in the gold business are as follows:

Treating each supervisory requirement as an inspection point, carrying out continuous inspection to the quality of underground water, discharge volume, the quality of discharged water and surface water level. Professional institution was engaged to test the quality of the sampled water and record the result, the test results showed that it was completely compliant with regulations.

The production and operation noise control report was prepared in accordance with the noise control provisions of the safety and inspection rules in mining industry. A consulting firm was also engaged to prepare the report on occupational noise exposure in June and September 2015. Upon completion of the preparation of the report, a plan was formulated to control noises in certain individuals' working areas and workplaces, which was implemented in the fourth quarter of 2016.

A Risk-based Hygiene Management Plan (RBHMP) is formulated and submitted to the Department of Mines and Petroleum (DMP) on 31 July each year, which discloses the measures taken by Hanking to control dusts in the mining area and summarizes the monitoring of occupational diseases during business operation in the year. To provide further supporting evidence for the RBHMP, Hanking also submits to the DMP an annual review report on the Fibrous Material Management Plan (FMMP), which discloses the type of employees who may be exposed to an environment full of fibrous materials and the measures taken to manage these materials in order to minimize the exposed areas.

#### 2. Iron Ore Business

The iron ore business also carried out supervisory activities to water quality and air quality and noise controlling on a regular basis. After the taking of corresponding measures, each indicator has been preserved to comply with the requirements of laws and regulations.

In May 2016, the Administration of Work Safety of Liaoning Province organized competent departments and experts to inspect and confirm the construction sites and relevant documents of the underground extension works for open-pit mine carried out by Aoniu Mine, and the final inspection and acceptance of the engineering project below +76 meters was officially passed.

In December 2016, the renovation and expansion project for the processing plant of Maogong Mine with a production capacity of 3 million metric tons passed the environmental acceptance review, for which Fushun Municipal Environmental Protection Bureau together with the relevant experts made the following comments: As the environmental impact assessment system and the "three simultaneity" system have been implemented during the process of production and the documents filed for the purpose of environmental protection inspection are complete, thereby we decide that this project has passed the completion acceptance inspection for environmental protection of construction project.

#### Emergency plans for unexpected environmental accidents

The Company has formulated emergency plans for unexpected environmental accidents. In case any environmental accident happens, immediate actions can be taken in accordance with the plans, and the Company can immediately report the nature of the accident, investigate and analyze the cause of accident, propose and implement remedial measures, and assess its effectiveness and impacts on the environment with an aim to prevent any environmental accident and the expansion of negative impact.

### **Environmental Protection**

#### Use of resources

For mining companies, mineral resources are their foundation to survive and thrive. The Group values and encourages thrifty and efficient use of resources, while preventing waste of resources by enhancing its effort in recycling.

#### Use of mineral resources

Mining and processing of mineral resources are the Group's core businesses. The Group strives to improve the recovery rate and the extraction rate of useful metal contained in the ores to reduce consumption of mineral resources, while offsetting such consumption by increasing its mineral reserve.

#### Improvement of the extraction rate and recovery rate

The ore extraction rate of gold business is improved by increasing the density of drilling of high-grade ores and reducing the loss of ores. By using the methods of carbon-in-pulp (CIP) and gravity concentration, the processing recovery rate could reach above 90%, which would maximally realize efficient utilization of resources.

The iron ore business minimizes the mining loss rate and dilution rate and maximizes the processing recovery rate by optimizing its mining methods and processing techniques, strengthening the management of on-site operations, and establishing strict technical standards for mining and processing in light of the actual conditions of each mine.

The iron ore business adopts the mining method of "separate mining and explosion", which can separate rubble and ore at the mining phase; bench mining from the top to the bottom ensures the recovery rate of open-pit mining at a level over 95%.

#### 1. Innovation in drilling and blasting technology by Aoniu Mine

Given that some lots are hard to blast and often covered with boulders or bedrocks, Aoniu Mine has made technical innovations to its drilling and blasting technology to control the boulder and bedrock ratio of such lots, which has reduced its loading, transportation and crushing expenses as well as the total mining costs due to a better blasting effect. The expenses associated with secondary treatment of block bedrock of stope were also cut down, and the production efficiency of stope was improved.


## 2. Phase II technological improvement for processing plant of Maogong Mine

Phase II technological improvement was implemented for the processing plant of Maogong Mine with respect to several issues in the production such as its serious gasp of slurry pump, large circles of grinding classification system and insufficient piping slope of certain processes. The improvement measures taken by Maogong Mine included: streamlining and shortening the technological process, adjusting equipment elevation, replacing the thickener and other equipment and applying condensed grinding magnetic separator and other equipment. Expected results have been achieved for the technological improvement through a period of operation, with the yearly economic benefits generated from the processing business increasing by RMB65 million.

### Increase of resources

Gold business increased 1,534,000 ounces of gold resource through integrating surrounding mining right and implementing geological exploration works, making the Group's gold resource which conforms to JORC standards increased to 4,568,000 ounces.

In 2016, the iron ore resources of our iron ore business had an increase of 1,007 thousand metric tons, while the annual output of iron ores amounted to 5,634 thousand metric tons. As of 31 December 2016, the iron ore resources amounted to 231 million metric tons, mainly due to the disposal of the resources owned by Benxi Mine and the decrease in resources of Aoniu Mine.

The nickel resources of our nickel business did not experience material change in 2016.

### Use of other key resources

Besides mineral resources, other key resources used by the Group include water, electricity and diesel. Use of each of these resources and measures for more efficient use of them are summarized below.

# **Environmental Protection**

### Water

Gold business has water recycling system, which pumps water in the tailing dam into the processing plant for recycling use with an aim to reduce production water use. In order to reduce daily water use, the wash basin in the office area is connected with recycled water and most toilets are half flushing.

Some mines of iron ore business adopt recycling water of high level water tanks or sediment water of open pit as production-use water of processing plant. Meanwhile, regular maintenance and repairment of large equipment are conducted by selecting energy-saving transformer and electromotor and with the attendance of technicians to continuously optimize technical parameters, thus to improve output of single machine. Aoniu Mine and Shangma Mine adopt high level water tank, which minimized the energy consumption by pumping up underground water for recycling use, and it is highly efficient in energy and water saving. Aoniu Mine constructed a septic tank of 150m<sup>3</sup> at the office area and dormitory area respectively, which, after processing, can be directly used in agricultural fertilization without discharge of production and living waste water. It also strives to prevent leakage and waste of water through intensive inspection and maintenance of water pipelines and storage facilities, putting up watersaving signage and fostering the habit of saving water. In order to reduce water consumption, the wash basins are connected to recycling water, and most toilets are half flushing.

Water consumption for production by the Group in 2016							
Water consumption (metric tons)							
Business segment	Underground water	Surface water	Municipal water supply	Total			
Gold business	1,022,595	687,750	53,346	1,763,691			
Iron ore business	-	3,087,749	-	3,087,749			
Nickel business	_	Nil (Water consumption for domestic use amounted to 8 metric tons per day and 2,920 metric tons in total)	-	Nil (Water consumption for domestic use amounted to 8 metric tons per day and 2,920 metric tons in total)			

#### Electricity

Power consumption for production by the Group in 2016			
Business segment	Power consumption (kWh)		
Gold business	1,395,735		
Iron ore business	96,611,267.95		
Nickel business	Measured in terms of diesel instead of electricity as all electricity used is generated by diesel generator.		
Total	98,007,002.9		

The Group reduces its power consumption by using power-saving facilities, installing new lines of energy-saving transformers and motors, reasonably selecting large equipment, reducing the number of equipment, improving the output per equipment, increasing production capacity to reduce power consumption of iron ore concentrates per metric ton, developing power-saving projects, adopting power-saving technologies, and weeding out obsolete equipment. In 2016, the power consumption of per metric ton of iron ore concentrates reduced approximately 5.56kwh as compared to the same period of last year.

The Company requires its employees to turn off electric equipment unused for a long time in a timely manner, and raises the awareness of its employees to save electricity by posting promotional signage, so as to prevent unnecessary wastage. In 2016, the Company continuously promoted physical exercise and power saving, with all staff responding actively, and it will go on with the initiative of "Go out during lunch breaks, and switch off for one hour".

By installing field compensation device at the low voltage side of the distribution room of each plant and intensive high voltage compensation device at the high voltage side of the power substation, Aoniu Mine increased the power factors in order to achieve the final goal of power conservation through increased utilisation rate of electricity power. The high-powered pumping equipment was modified to apply variable frequency starting, in order to make full utilisation of the equipment, reduce power consumption and achieve power conservation. An energy consumption management and control system has been installed in order to evaluate various energy conservation measures, which has achieved favourable results.

Diesel consumption by the Group in 2016						
Business segment	Diesel consumption (Liters)	Remarks				
Gold business	3,741,434	Using diesel-saving engines wherever possible.				
Iron ore business	4,154,943.393	Mainly consumed by the production equipment of the Company, not including the diesel oil consumed by the contractors.				
Nickel business	73,000	As the nickel business suspended production in 2016, the diesel consumed was used for diesel oil-fired units at each base for power generation. Meanwhile, all vehicles were powered by diesel, so the main resource consumed was diesel.				
Total	7,969,377.39					

### Diesel

The Company reduces its diesel consumption by preferring diesel-saving equipment, using diesel-powered equipment reasonably, turning off equipment not running for a long time in a timely manner, and preventing spill when refueling. In the meantime, the Company has enhanced the management of diesel purchase, transport, storage and use, in order to prevent any waste, abuse and loss.

Wherever possible the gold business uses diesel-saving engines. Aoniu Mine is also piloting an accurate measurement system on diesel consumption to enable the remote monitor and dynamic analysis of diesel consumption by installing consumption sensors on all production vehicles.

# **Environmental Protection**

Iron ore business obsoleted relevant equipment and vehicles with high energy consumption and low production capacity by optimizing the equipment and facilities of processing plant and mining plant, transformed from open-pit mining to underground mining at an increasing number of mines, and adopted the strategy that diesel used for the underground mining project will be supplied by the underground mining construction unit, which in turn reduced the diesel consumption of the Company.

Nickel business advocates good habit of economic use of electricity including turning on lights only when necessary and turning off lights and equipment when not in use promptly, and strictly controls the use of vehicles by reducing the utilization rate. Vehicles are suggested to power off in a timely manner during the use process. Power saving facilities and equipment are used as frequently as possible, power-saving projects are developed to avoid oil spill over of vehicles and equipment when refueling. Supply of power is limited, and the diesel power generators of each base (camp) are only put into gear for only 10 hours per day.

## Recycling of waste and used materials

The Group encourages the recycling of waste and used materials, with an aim to reduce waste of resources and turn waste into wealth. Dedicated mechanical maintenance department at each mine can revamp abandoned and worn-out equipment for reuse.

The scrap iron and steel generated from and the vehicles of the gold business were recycled as much as possible. The repair and maintenance system has been improved in order to ensure a longer useful life for the equipment and accessories. Recycled scrap iron and steel will be sold to scrap metal recyclers, and retired vehicles recycled will be sold to scrap dealers or used for ERT training. A total of 56 metric tons of junked tyres were generated in 2016, which were either reused or sent to the onsite landfill as far as possible. None of these tyres were recycled.

The iron ore business had recycled 164.38 metric tons of steel scrap, 984 used tyres and 10 used vehicles, with a sales value of RMB868,000.

# **Emissions**

The Group has enhanced its management of emissions to reduce the generation and emission of waste by utilizing technologies and recycling. The Group has obtained required emission permit and its emission of industrial "three wastes" has reached the required standards, which are detailed below:

# Emissions from the gold business

**Types of emission:** the major emission of our gold business are separated soil and stone, noise and dust from mining plants, tailing sand from processing plants and household garbage.

**Treatment and comprehensive utilization of emission:** In 2016, gold business generated 1,757,935 metric tons of tailing sand in total, which were all discharged into the tailing pond of processing plant in accordance with the permission. A total of 14,487,547 metric tons of waste water were generated, which were recycled by the processing plant for production purpose as much as possible. Waste water generated by the processing plant was stored in the tailings or dam and will cause no adverse impact on the environment.

**Management and comprehensive utilization of tailing pulps:** All tailing pulps from processing plant of gold business are piled in Cell TSF 1 of tailing ponds in accordance with corresponding permissions obtained based on laws and regulations of Australia. Tailing pulps contain cyanide compound, which, if leaked substantially, might cause environmental pollution. Therefore, gold business continuously monitors water height and water quality with 12 monitoring points to monitor leakage of tailing ponds. Leak ditch was built to control leakage in the TSF of tailing ponds during production. Meanwhile, gold business measures underground water height and tailing dam height via pressure meter. All continued monitoring results indicate that the discharge of gold business conformed to the standards.

**Dust prevention and removal measures:** The processing plant of the gold business carried out technological upgrading with adequate equipment and management means for energy saving, emission reduction, dust prevention and noise reduction. For example, sprayers and closed hoods were used to remove dusts, and the quality of underground air was ensured by monitoring inhalable dusts on a weekly basis, keeping ventilation fans running and setting up maintenance plans for the ventilation system.

## Emissions from the iron ore business

**Types of emission:** A physical magnetic separation process was adopted by the iron ore business to produce iron ore concentrates, so no toxic substances were emitted during production. The mining operation mainly generates separated soil and stone, while the processing operation mainly generates tailing pulps. Zero emission of wastewater is achieved by recycling wastewater. Noises and dusts will be emitted during the mining and hauling operation at mine sites, as well as the crushing and machine operation at the processing plant. Off-gas will be emitted by running fuel-powered equipment. In addition, there are also domestic wastes.

In 2016, iron ore business separated about 6,450,637.76 metric tons of soil and stone in total, and discharged about 3,151,310.77 metric tons of tailing sands in total. Some open-pit mining is changing to underground mining, so that the soil and stone volume separated will be significantly reduced. Furthermore, through technological improvement, the grade of raw ore will be increased, thus reducing the emission of tailing sands.

### **Emissions Management Methods**

In order to effectively implement unified management of storage, utilisation and disposal of mine solid wastes, advocate the principle of "cyclic utilisation of mines and wastes being misplaced resources" and make rational and effective use of solid wastes, the iron ore business issued the Administrative Measures for Mine Solid Wastes (《礦 山固體廢棄物管理辦法》) on 6 May 2016.

**Management and comprehensive utilization of separated soil and stone:** In the stripping operation, topsoil and waste rocks are stripped and piled at the waste dump separately. The Company manages and monitors, on a daily basis, the piles of waste rock and soil at the waste dump, in order to prevent flying dusts as well as water and soil erosion. Soil and stone separated may be used for reclamation, backfilling and construction of roads. Stripped waste rocks may be filled into the bottom of mine pits, and large rocks may be used for repairment and construction of drains, while stripped topsoil may be laid on the surface of mine pits, which is helpful for the growth of vegetation and environmental restoration.

**Management and comprehensive utilization of tailing sand**: Normally, tailing sand is discharged to the tailing pond along with tailing pulps and settles down at the bottom of the pond over time. The Company manages and monitors, on a daily basis, its tailing ponds, including the volume and height of tailing sand therein, to ensure that the height of tailing dam remains at a safe level.

# **Environmental Protection**

**Iron ore business has adopted two excellent solutions to comprehensively utilize tailing sand:** 1. using tailing sand to produce non-burnt bricks for construction. The tailing sand from the processing plant is used in the production of non-burnt bricks for construction, and the comprehensive utilization rate of tailing sand is around 20%. 2. using advanced processing techniques to throw out tailing sand, which will be used as construction sand. Some tailing sand from Maogong Mine is used as pre-concentration dry slag for road repairment. In addition, the amount of ore to be processed has been reduced through technical transformation, which resulted in the decrease of tailing volume.

**Dust prevention and removal measures:** The gold business carried out technology upgrading for the processing plant, so as to ensure sufficient facilities and management measures to achieve energy conservation and emission reduction as well as dust prevention and noise reduction. For example, sprayers and seal boots are used to remove dusts; amount of inhalable dusts are monitored on a weekly basis; and ventilators are working on a 24 hour basis and a ventilation system maintenance program is in place to ensure the air quality underground.

At the mining sites and on the roads to these sites, sprinkling trucks and pipelines are used to remove dusts by spraying water. In the grinding workshops at our processing plant, a wet grinding process has been adopted to prevent dusts. Bag filters have been installed across the crushing workshops, screening workshops, waste rock storehouse, main building and other areas of the processing plant, and high level emission has been adopted to eliminate dusts resulting from production, with the dust removal efficiency reaching 99%.

**Noise reduction measures:** The iron ore business optimizes blasting design, applies structural insulating materials, conducts technical process transformation, uses underground tailing pump stations and low noise equipment, makes interior disposition for high noise sources, installs shock pads on crushers, screening machines and ball grinders, and takes other effective measures to mitigate damages caused by noise, reducing noise from the previous 91 db to approximately 80 db which has met the requirements of "Emission Standard for Industrial Enterprises Noise at Boundary" (GB12348-90).

**Recycling of wastewater with zero emission:** Wastewater generated from the iron ore business production mainly comprises water carried by tailing pulps emitted from the processing plant. Tailing pulps are discharged into the tailing pond. After sedimentation and clarification, clean water will flow into the circulation pump station, then pumped back to the processing plant for reuse in processing. In this way, wastewater emitted during production at the processing plant is recycled and reused through the tailing pond as a closed cycle, without any external emission. At the same time, domestic wastewater treated in septic tanks emitted from the plants and rainwater are also discharged into the tailing pond for the processing plant to reuse after clarification, without emitting any domestic wastewater or rainwater.

Some mines adopt recycling water of high level water tanks or sediment water of open pit as production-use water of processing plant. Aoniu Mine and Shangma Mine adopt high level water tanks, achieving recycling use of water pumping from underground.

**Reduction of off-gas emissions:** The Company selects and uses diesel-powered equipment compliant with national emission standards in a reasonable fashion, and switches off equipment not running for a long time in a timely manner, so as to reduce its off-gas emissions.

**Treatment of domestic waste:** Domestic waste emitted from the accommodation area will be buried after treatment in septic tanks if it is perishable, or removed to the refuse depot for disposition if it is non-perishable. The Company promotes waste sorting and forbids employees to throw away or burn domestic waste at will.

### Emissions from the nickel business

In 2016, affected by the policy prohibiting raw ore export promulgated by the Indonesia government, the nickel business suspended its mining activity, thus the business has not generated any production emission.

# Operating Practices

# Supply chain management

The Group has developed and implemented the Material Procurement Management System to unify the purchase, storage and deployment of the materials required by each mine. On the basis of the material requirement plans developed by the production department and the categories of the materials, the Group generally purchases materials through three methods, namely bidding, price enquiry/comparison and sentinel procurement. Contracts shall be signed for all purchases and the Company strictly supervises and controls the performance of the contracts and the payment of the funds. The Company keeps a list of suppliers and makes regular assessment and update. The Company constantly analyses the inventory of the materials, purchased categories and material consumption. The Company also evaluates the environmental and social risks of the supply chain on a regular basis, so as to ensure the safety of the supply chain.

In 2016, the suppliers of the Group are mainly from China, Indonesia and Australia. Of which, about 8 suppliers are selected through bidding, about 958 suppliers are selected through price enquiry/comparison and about 115 suppliers (regional agents) are selected through sentinel procurement. The selection of suppliers of the Group shall be subject to the approval process and supervision procedure, and shall be supervised by the legal department and audit department of the Group, so as to ensure a fair selection procedure.

# **Product responsibility**

The Group attaches importance to its product quality and reputation. The Group has developed and implemented measures on management of product quality and sales, and enhanced product quality inspections and sales management, so as to ensure that superior products are offered for customers.

Before leaving the production plants at the mines and upon delivery to the customers, the products sold to customers by the Group shall be subject to measurement and quality inspection. The data provided by the Company on the quantity and quality of the products shall be compared with those provided by the customer. If there is a considerable disparity between the results of both parties, the Company and the customer shall solve the dispute through negotiation. If no settlement is reached, the dispute shall be referred to a third-party authoritative organization for review and arbitration.

In order to strengthen quality control, and stabilize and improve product quality, the iron ore business embarked on amending the Engineering Project Management System 2.0 (《工程項目管理制度2.0》) and Acceptance Management System (《驗收管理制度》) since 2015, which were subsequently issued on 9 December 2015.

# **Operating Practices**

# **Anti-corruption**

The Group and the employees have strictly complied with the relevant legal regulations and ethnic codes. No legal cases against the Group or our employees concerning corruption, bribery, extortion, fraud or money laundering were filed in 2016.

The Group has developed and implemented the auditing and offence reporting system, and also has engaged independent auditors to conduct external audits on the Company, with an aim to prevent and control the fraud or wrongdoings within the Company through internal and external audit.

The Company undertakes to comply with the laws and regulations on business operation. The employees have the right to report alleged violations of state laws, regulations and policies, internal control problems of the Company, and other fraud or violation of Company's disciplines to the Company. Informants may provide detailed information to the audit committee of the Company through telephones, letters, e-mails, and interviews, etc. Informants can bring reports beyond the service scope of the audit committee of the Company to relevant departments and make necessary reflection. In case of major problems or emergencies, informants should report to the senior management or the board of directors of the Company. The Company keeps the information of informant employees strictly confidential to ensure that they won't be retaliated or discriminated illegally for the reporting.

# **Community relationship**

Adhering to the tenet of "harmonious mines", the Group attaches importance to the establishment of a harmonious relationship with the local communities. The Company comes to understand their needs by actively participating in community activities, and takes concrete actions to ensure that interests of the communities are taken into consideration in the operations of the Group.

# Reinforcing communication with the communities

Upholding the principle of "establishing harmonious relationship between villages and enterprises", the Group reinforced communication with the local communities, so as to promote harmonious coexistence with the villages. In light of the actual situation, the Company has established a series of systems to understand demands from the local communities and to maintain the relationship between villages and enterprises, so as to ensure smooth communication and active coordination with the local communities. With the support of the local government and villages, the Company established the joint mediation mechanism to promote equal dialogue among the three parties, so as to provide equal coordination and maintain a harmonious and stable relationship between villages and enterprises.

	Reception of the local communities and villagers by the iron ore business in 2016						
No.	Date	Communities or villagers	Demands	Response by the Company	Description		
1	June 2016	Aoniu Villager	Paving a new road as the existing surrounding road at the tailing pond was inundated with water.	Agree	Assigned one vehicle and two excavators to pave a new road above the water of the tailing pond for five days.		
2	July 2016	Aoniu Villager	Watering the road to reduce dust.	Agree	Assigned one sprinkler truck to water the road when the vehicles entered into the village to reduce dust for six months.		
3	September 2016	Aoniu Villager	Assigning loaders to assist road pavement in the village.	Agree	Assigned one excavator to assist road pavement with shovel loader for seven days.		

# **Community construction**

As we are part of the community, efforts to construct the community are to improve our living environment. The Group actively supported the community construction and tried to make contributions to the community.

In 2016, Aoniu Mine invested RMB1,500 and assigned five staff to help Aoniu village to participate in the Square Dance Competition of Houan town for three days.

## Community environment

The Group actively involved in the environment construction of the local communities, and spared no efforts to raise their awareness towards environmental protection.

In 2016, Aoniu Mine invested RMB30,000 and assigned 4 employees to carry out the daily sprinkling operation on Aoniu village's road to reduce dust for a period of seven months. In addition, another RMB5,000 was invested for the afforestation and reclamation activities in the mining area in spring and autumn.



In 2016, Aoniu Mine assigned 4 employees to carry out the sprinkling operation on Aoniu village's road to reduce dust for a period of seven months.

In August 2016, a flood disaster struck in Houan Town. After being informed of the news that some villagers were trapped as Tongmugou village's bridge was destroyed and Xiaotaigou Village's road was blocked, Aoniu Mine worked in concert with the town government immediately to formulate a disaster relief plan. In addition, during the two day flood fighting and emergency rescue campaign, Aoniu Mine invested RMB30,000 and dispatched 20 employees from the mining plant and Production Safety Division as well as 10 transportation vehicles and excavating equipment to ensure smooth delivery of disaster relief materials and minimize losses caused by flood disaster.

In 2016, the nickel business actively participated in social welfare activities such as interaction between village and enterprise. Specifically, it invested IDR5,600,000 to help Tambakua village of Langgikima Town repair road; it invested IDR73,500,000 to help Tambakua village of Langgikima Town dredge river channel; it invested IDR50,000,000 to help Nukarsan village of Langgikima Town repair road; it invested IDR1,000,000 to help Lameruru village of Langgikima Town dredge river channel; and it invested IDR73,500,000 to help Pondoa village of Wiwirano Town dredge river channel.

## Community care

The Group cares about the local people who are in need of help, and provided them with necessary support. On the eve of every Spring Festival, the iron ore business staff visit the low-income worker families and bring them rice, flour, oil and other necessities. The iron ore business also occasionally organizes some young employees of



the Company to clean the houses for the villagers with mobility disabilities and provide assistance within their capacity.

On 3 March 2016, the launching ceremony for Fushun's volunteer activity of learning from Leifeng under the theme of "Caring with Love" (善行者與愛同行) was held in the Nursing Home of Sidao Village of Houan Town in Fushun County. As the only enterprise unit in this activity, Aoniu Mine assigned a total of 12 volunteers to help the nursing home do voluntary labor.

In December 2016, Aoniu Mine allocated RMB2,000 and assigned 3 employees to spend one day to provide workers in difficulties with necessities of life to help them get through difficulties.

In December 2016, the nickel business donated a total of IDR1,500,000 to three churches at both village and county level at Christmas.

# Education

In 2016, outstanding children both in integrity and study from over 10 families of employees in difficulties of Aoniu Mine, Maogong Mine and Shangma Mine of the Group were designated as qualified to receive financial support from the "Golden Fall Study Support" (金秋助學) campaign organized by the General Labour Union of Fushun County, with a financial aid of RMB2,000 for each student.

# Labor demand

The candidates from the community where the Group runs business enjoy the priority to be recruited, which not only relieves the local employment pressure, increases villagers' income, but also promotes good relationship between villages and enterprises.

The gold business consists of the production operation of the SXO Gold Project. The SXO Gold Project employed a total of 98 employees including 9 local residents.

The table below presents the employment of local villagers by each mine operated by the iron ore business in 2016:

Mines	Total number of employees	Number of local employees	Percentage of local employees to total workforce
Aoniu Mine	538	481	89.41%
Maogong Mine	357	316	88.52%
Xingzhou Mine	18	15	83.33%
Shangma Mine	66	61	92.42%
Total	1,696	1,123	66.21%

The operating camps of the nickel business also employ many local Indonesian staff. In 2016, the distribution of employees at the operating camps of the nickel business by nationality is as follows:

Total workforce	Number of Chinese employees	Number of local employees	Percentage of local employees to total workforce
68	24	44	64.71%

# Culture

The Group attached great importance to participating in the community cultural activities and carried out various forms of cultural exchange activities with the local communities.

In March 2016, the Spring Festival Art Performance for Employees under the theme of "Extending Warmth to Employees" jointly organized by the General Labour Union of Fushun Municipality and Fushun Municipal Bureau of Culture was held at Aoniu Mine. A splendid art performance was presented to Aoniu Mine's frontline staff. During the performance, Liu Jin, vice executive chairman of the General Labour Union of Fushun Municipal awarded the



honorary plaques of "National Advanced Unit for Staff's Professional Ethics Construction" ("全國職工職業道德建設 先進單位") and "Advanced Unit as Model Home for Staff in Liaoning Province" ("遼寧省模範職工之家紅旗單位") to Aoniu Mine.

In October 2016, the Electrician Competition of Hanking Division of the Ninth Workers Skill Competition of Fushun Municipality was held at the activity center of Aoniu Mine. The competition comprised of theory test and practice test. Li Yang (李陽), an electrician from Maogong Mine, who scored 98 and 100 in the theory test and practice test respectively, won the champion of the competition and was awarded with the title of "Skill Master" as well as a master subsidy of RMB300 each month.

In November 2016, the "2016 Fushun Bank Cup – Youth Innovation and Benefit Contest in Fushun" jointly held by the China Communist Youth League Fushun Committee, the General Labour Union and the Bureau of Science and Technology of Fushun Municipality concluded successfully. The "Modification Project of Three Major System for Frequency Control of Energy Consumption of Reactive Compensated Pumping Equipment" ("無功補償泵類設備變 頻能耗管控三大系統改造") developed by Ji Yuxin (紀玉鑫) and other employees from Aoniu Mine won the second prize, which is the only prize obtained by private enterprises.



## **Sports**

The Group carried out a variety of sports activities with local communities and villages, including basketball matches, mountain-climbing competitions and football games. These activities were not only conducive to the good health of the employees, but also promoted the harmonious relationship between the villages and our enterprises.

The gold business encouraged its employees to participate in the sport activities with local residents, the employees in charge of environmental protection always played Australian football (AFL) with the local residents.



In September 2016, employees from the iron ore business took part in and won the champion of the Workers' Basketball Match of Fushun County.

Sport activities participated by the iron ore business in 2016						
Community sport activities	Number of participants	Time	Costs (RMB)	Description		
Basketball game	15	3 days	3,000	Participating in the basketball game held by Hanking Mining		
Basketball game	5	1 day	0	Participating in the basketball friendship game held in Aoniu village		
Badminton match	9	1 day	500	Participating in the badminton match		

## Indicators Index

This indicators index illustrates the Company's compliance, during the reporting period, with provisions of each indicator of "comply or explain" and with disclosure requirement of indicators regarding "recommended disclosures" set out in Environmental, Social and Governance Report.

Key Performance Indicators	Disclosures	Pages	Explanation
A. Environmental			
Information on the policies and compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	٠	38-40	
Types of emissions and emission of waste.	٠	38-40	
Total emissions volume (in metric tons) and, where appropriate, intensity of greenhouse gases (e.g. per unit of production volume, per facility).	0		Implementation starting from 1 January 2017
Total hazardous waste produced (in metric tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	0		Implementation starting from 1 January 2017
Total non-hazardous waste produced (in metric tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	•	38-40	
Description of measures to mitigate emissions and results achieved.	•	38-40	••••
Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	•	38-40	
Policies on the efficient use of resources, including energy, water and other raw materials.	•	31-35	
Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	•	36-37	
Water consumption in total and intensity (e.g. per unit of production volume, per facility).	•	36	
Description of energy use initiatives and results achieved.	0		recommended disclosures
Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	•	36	
Total packaging material used for finished products (in metric tons) and, where appropriate, with reference to per unit produced.	0	N/A	N/A
Description of the significant impacts of business activities on the environment and natural resources and the actions taken to manage such impacts.	•	31-33	
	A. Environmental         Information on the policies and compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.         Types of emissions and emission of waste.         Total emissions volume (in metric tons) and, where appropriate, intensity of greenhouse gases (e.g. per unit of production volume, per facility).         Total hazardous waste produced (in metric tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).         Total non-hazardous waste produced (in metric tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).         Description of measures to mitigate emissions and results achieved.         Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.         Policies on the efficient use of resources, including energy, water and other raw materials.         Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).         Description of energy use initiatives and results achieved.         Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.         Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.         Description of whether there is any issue in sourcing water that is	A. Environmental         Information on the policies and compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste. <ul> <li>Types of emissions and emission of waste.</li> <li>Total emissions volume (in metric tons) and, where appropriate, intensity of greenhouse gases (e.g. per unit of production volume, per facility).</li> </ul> Total hazardous waste produced (in metric tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility). <ul> <li>Total non-hazardous waste produced (in metric tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).</li> </ul> Total non-hazardous waste produced (in metric tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility). <ul> <li>Description of measures to mitigate emissions and results achieved.</li> <li>Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.</li> <li>Policies on the efficient use of resources, including energy, water and other raw materials.</li> <li>Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (KVh in '000s) and intensity (e.g. per unit of production volume, per facility).</li> </ul> Water consumption in total and intensity (e.g. per unit of production volume, per facility). <ul> <li>Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency inititatives and</li></ul>	A. Environmental         Information on the policies and compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.       38-40         Types of emissions and emission of waste.       38-40         Total emissions volume (in metric tons) and, where appropriate, intensity of greenhouse gases (e.g. per unit of production volume, per facility).       0         Total hazardous waste produced (in metric tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).       0         Total non-hazardous waste produced (in metric tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).       0         Total non-hazardous waste produced (in metric tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).       0         Description of measures to mitigate emissions and results achieved.       38-40         Description of now hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.       38-40         Policies on the efficient use of resources, including energy, water and other raw materials.       36-37         Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).       36         Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.

Aspects	Key Performance Indicators	Disclosures	Pages	Explanation
	Employment and Labour Practices			
General Disclosure	<ul> <li>Information on:</li> <li>(a) the policies; and</li> <li>(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, holidays, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.</li> </ul>	•	22-25	
B1.1	Total workforce by gender, employment type, age group and geographical region.	•	22-23	Recommended Disclosure
B1.2	Employee turnover rate by gender, age group and geographical region.	•	22-23	Recommended Disclosure
General Disclosure	<ul> <li>Information on:</li> <li>(a) the policies; and</li> <li>(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.</li> </ul>	•	17-22	
B2.1	Number and rate of work-related fatalities.	•	17	Recommended Disclosure
B2.2	Lost days due to work injury.	•	17	Recommended Disclosure
B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	•	18-22	Recommended Disclosure
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	٠	25-30	
B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	•	27-30	Recommended Disclosure
B3.2	The average training hours completed per employee by gender and employee category.	•	27-30	Recommended Disclosure
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	•	30	
B4.1	Description of measures to review employment practices to avoid child and forced labour.	•	30	
B4.2	Description of steps taken to eliminate such practices when discovered.	0		Recommended Disclosure
	Operating Practices			
General Disclosure	Policies on managing environmental and social risks of the supply chain.	٠	41	
B5.1	Number of suppliers by geographical region.	٠	41	Recommended Disclosure
B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	•	41	Recommended Disclosure

Aspects	Key Performance Indicators	Disclosures	Pages	Explanation
	Product Responsibility			
General Disclosure	<ul> <li>Information on:</li> <li>(a) the policies; and</li> <li>(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters in respect of products and services provided and methods of redress.</li> </ul>	0	N/A	N/A
B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	0	N/A	N/A
B6.2	Number of products and service related complaints received and how they are dealt with.	0		Recommended Disclosure
B6.3	Description of practices relating to observing and protecting intellectual property rights.	0		Recommended Disclosure
B6.4	Description of quality assurance process and recall procedures.	0		Recommended Disclosure
B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	0		Recommended Disclosure
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	•	42	
B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	•	42	Recommended Disclosure
B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	•	42	Recommended Disclosure
	Community			
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	•	43-47	
B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	•	43-47	Recommended Disclosure
B8.2	Resources allocated (e.g. money or time) to the focus area.	•	43-47	Recommended Disclosure