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# CONTINUOUS IMPROVEMENT FOR FUTURE GROWTH

[102-16]

Since 2013, the Company has implemented its continuous improvement process called the Martabe Improvement Program (MIP). The program has been very successful over the years, primarily measured by increased production and reduced unit costs. During this period we have increased our mill production from 3.6 million tonnes per year (280,000 ounces of gold) to 5.6 million tonnes per year (412,200 ounces of gold) and reduced All-in Sustaining Cost (AISC) from \$799 per ounce to \$367 per ounce, representing a 54% reduction. This remarkable outcome has been achieved without compromising other important operational outcomes such as safety and protection of the environment.

A more efficient operation provides a platform to identify further possible improvements in the business. We are well positioned to exploit these opportunities for future growth. The exploration program continues to be a strong and successful investment in discovering more gold. We are also commencing a pre-feasibility study on options to treat sulphide ore, effectively to increase the life of the mine.

Economic performance, alongside environmental and social, is one of the three pillars of sustainable development. The improvements in efficiency delivered by the Martabe Improvement Program directly support sustainable development by maximising resource utilization and extending mine life, and will provide greater benefits over additional years for all key stakeholders, including investors, employees, government and local communities.

#### VISION

To become a sustainable world-class operation delivering first-quartile performance in the gold industry.

#### **MISSION**

To develop a long-term sustainable business generating positive outcomes for all stakeholders.

#### **CORE VALUES**

Success at PTAR is driven by our people who live by our GREAT values:

**Growth** and added value - for all our stakeholders.

**Respect** - for people, culture, and stakeholders.

Excellence - through energy, enthusiasm, and commitment.

**Action -** delivery and doing what we say we are going to do.

**Transparency -** openness, listening, engagement, honesty.

## **ABOUT THIS REPORT**

[102-51] [102-52] [102-54]1

This report is the fifth annual sustainability report for PT Agincourt Resources (PTAR), owner and operator of the Martabe Gold Mine in Sumatra, Indonesia. The Martabe Gold Mine is located close to communities, agriculture, waterways and forests, and operations at the mine potentially impact a range of stakeholders, most important of which are local communities. These communities will continue long after mine closure and the successful implementation of sustainable development at Martabe Gold Mine is therefore key to the Company's social license to operate.

Sustainable development is often defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs<sup>2</sup> and has become widely accepted as a key guiding principle for long-term global development. It has three key aspects or pillars, being environmental, social and economic performance. The focus of this sustainability report is therefore the significant economic, environmental and social impacts associated with operations at the Martabe Gold Mine.

This report has been prepared in accordance with the GRI Standards: Core option, produced by the Global Reporting Initiative (GRI), an international standards organisation.<sup>3</sup> The GRI Standards are the first global standards for sustainability reporting and represent best practice for organisations reporting on the economic, environmental and social impacts resulting from their activities and how they are being managed. The period covered by this report is the 2018 calendar year (the most recent report previously addressed the 2017 calendar year).

In its sustainability reporting, the Company endeavours to meet the GRI reporting principles, being:

- Accuracy.
- Balance.
- Clarity.
- Comparability.
- Reliability.
- ▶ Timeliness.

In addition, the Company aims to make the reports interesting and accessible for the majority of its stakeholders, who may not necessarily possess familiarity with the way in which mines operate and the management of associated potential environmental and social impacts.

This report comprises seven main sections and five appendices, the purpose and content of which are summarised overleaf.

The reference codes shown here and under other section headings indicate the GRI Standard Disclosures addressed by each section (see Appendix 3 for more information).

World Commission on Environment (1987)

<sup>3.</sup> https://www.globalreporting.org/standards

#### **GUIDE TO THE FOLLOWING SECTIONS IN THIS REPORT**

Section	Purpose
Message from The President Director	To clearly communicate the Company's commitment to sustainable development and its principles and goals in this regard. To highlight sustainable development performance in 2018 and expectations for the coming years.
Sustainability Performance at a Glance	Key Performance Indicators (KPIs) that provide an overview of the Company's progress in managing selected aspects of sustainability in 2018.
About the Company	Information about the Company that provides context for understanding the sustainable management results documented in the report, including organisational and operational profiles, strategy for managing sustainability, approach to impact assessment, corporate governance, and stakeholder engagement.
Our Local Communities	An introduction to the history, culture and socioeconomic status of the local communities around the Martabe Gold Mine, key stakeholders in the Company's implementation of sustainable development.
Sustainability Milestones	PTAR has been managing for sustainability since project commencement. This section provides an overview of sustainability milestones year by year, as a backdrop to understanding the sustainability results for 2018.
PTAR's Approach to Managing Sustainability and Results Achieved	A description of general principles and practices applied by the Company in the management of sustainability and discussion of the results achieved in 2018.
Looking Forward	Medium-term objectives and goals related to management of sustainable development by the Company.
Appendix One	Explanation of the way in which the scope, content and boundaries of this report were established to meet the requirements of the GRI Standards.
Appendix Two	Presentation of a GRI Standard data table addressing identified material aspects or topics for the Martabe Gold Mine.
Appendix Three	Cross-referencing the contents of this report against GRI General Standard Disclosures and Topic-specific Standard Disclosures to indicate conformance with GRI reporting requirements.
Appendix Four	Independence assurance statement which provide confirmation that PT Agincourt Resources Sustainability Report 2018 had been prepared in accordance with GRI Standard: Core Option.
Appendix Five	A glossary aimed at making sure that all readers can understand report content irrespective of technical background or familiarity with mining.
PTAR Sustainability Report Feedback Form	Providing readers with a form that facilitates feedback on this report.

## MESSAGE FROM THE PRESIDENT DIRECTOR

[102-14]



On behalf of the Board of Directors, I am pleased to introduce the 2018 PTAR Sustainability Report, which marks five years of annual sustainability reporting by our Company. The main purpose of these reports is to provide our stakeholders with a balanced and accurate account of how well the Company is implementing sustainable development. Specifically, how well we are managing the environmental, social and economic impacts associated with operation of the Martabe Gold Mine. The Board of Directors recognises that our performance in managing these aspects is key to maintaining the Company's social license to operate and safeguarding opportunities for future growth of our business.

I encourage all interested stakeholders to read this report in full, but I also will take the opportunity to highlight here some of our key achievements in managing for sustainability in 2018. I have based this around the three pillars of sustainable development, being environmental, social and economic performance, as follows.

#### **Environmental Performance**

The Martabe Gold Mine's strong environmental record was maintained in 2018. No significant environmental incidents were recorded.

Discharge of treated water from the Water Polishing Plant (WPP) to the Batangtoru River remained fully compliant with permit conditions and regulatory limits. This maintains a continuous record of compliance since commencement of operations, a result that can be accurately described as meeting industry best-practice.

An Amdal Addendum addressing a range of operational improvements and mining of the Tor

Uluala deposit was approved. An additional 4.6 hectares of disturbed area was rehabilitated, increasing total area rehabilitated to 18.3 hectares. Finally, Martabe received a Pratama (bronze) award under the ESDM¹ environmental management assessment program for mining operations.

#### **Social Performance**

There is no operational outcome at Martabe more important than worker safety, and the Company's goal in this regard is the elimination of workplace accidents. In 2018, our efforts were rewarded with the achievement of zero lost time injuries across the entire site workforce, resulting in a Lost Time Injury Frequency Rate (LTIFR) of zero, a safety performance equivalent to the best across the mining industry internationally. To support further reductions in safety risk, we launched a new program addressing major safety hazards, called the Critical Controls Program.

The Company maintained an active community development program in 2018, ensuring that local stakeholders continued to benefit directly from operation of the mine. A total of \$1.25 million was provided in support of programs addressing health, education, local business development and public infrastructure improvements. In addition, the Company purchased goods and services locally to the value of \$11.4 million.

The Company's commitment to providing local communities with significant opportunities for employment at Martabe was maintained with 74% of employees at Martabe Gold Mine being local.

<sup>1.</sup> Ministry of Energy and Mineral Resources

#### **Economic Performance**

The operational performance of the Martabe Gold Mine in 2018 was outstanding, with benchmarks being set across key operating metrics such as gold produced and All-in Sustaining Cost (AISC). Exceptional financial results for the year in turn supported significant financial contributions to our stakeholders. In addition to the community development funding and support for local businesses already mentioned, this included tax and royalty payments to government amounting to \$126 million and employee wages and benefits amounting to \$29 million.

2018 was another excellent year for exploration at Martabe, resulting in considerable upgrades to the classification of Mineral Resources for the mine and the identification of high grade sulphide mineralisation. These results support opportunities for increased mine life, with potential benefits for all key stakeholders.

#### **Looking Forward**

We hope that the information contained in this report meets the needs of our stakeholders, and we encourage suggestions as to how we can improve sustainability reporting (there is a feedback form at the end of this report). Our goal is ongoing improvement in our management of sustainability outcomes. Specifically, for 2019, we are expecting significant improvements in our planning for biodiversity protection, tailings management, community development and occupational safety. I look forward to reporting on these developments in the 2019 Sustainability Report.

Jakarta, October 2019

MULIADY SUTIO
President Director



## SUSTAINABILITY PERFORMANCE 2018 AT A GLANCE

#### **ECONOMIC AND SOCIAL**

**Tax and Royalty Payments to Government** 

US\$126.4 million

US\$77.84M

2017

**Wages and Benefits to PTAR Employees** 

US\$29 million

US\$28.5M

Provision of Goods and Services by Local Contractors and Suppliers

US\$11.4 million

US\$20.7M

**Locals Employed at the Martabe Gold Mine** 

1,945 People

**1,970** 2017

% Local Employment

74%

**74**% 2017

**Community Development Investments** 

US\$1.25 million

US\$1.72M

#### **ENVIRONMENT**

Numbers of Days Discharging Water to the Batangtoru River

**333** days

297 days 2017

**Compliance with Discharge Permit** 

100%

100% 2017

ESDM Environmental Management Assessment

PRATAMA (Bronze)

PRATAMA (Bronze)

**Seedlings Planted** 

3,640

**2,939** 2017

2017

SAFETY

Lost Time Injuries

1 2017

LTIFR<sup>1</sup>

0.00

**0.15** 2017

SMKP Minerba Audit Score<sup>2</sup>

97%

93% 2017

**Attendance at Safety Training Courses** 

14,000 hours

15,000 hours 2017

<sup>1.</sup> Lost Time Injury Frequency rate (per one million man-hours).

<sup>&</sup>lt;sup>2</sup> SMKP Minerba is the government standard for mine safety management systems.

**ABOUT THE COMPANY** 





### PT AGINCOURT RESOURCES

[102-1] [102-2] [102-3] [102-5] [102-7]

PT Agincourt Resources is an Indonesian mining company engaged in mineral exploration and the mining and processing of gold and silver. The Company's sole operating site is the Martabe Gold Mine in Sumatra. Corporate functions are managed from a headquarters in Jakarta.

PTAR's majority shareholder (95%) is PT. Danusa Tambang Nusantara, owned by PT. United Tractors Tbk (60%) and PT. Pamapersada Nusantara (40%). The remaining 5% of shares is owned by the Governments of South Tapanuli Regency and North Sumatra Province through ownership of PT Artha Nugraha Agung.

At the close of 2018, PTAR employed 814 permanent and contract employees, 779 based at the Martabe Gold Mine and 35 based at the office in Jakarta. All national employees (98% of total) are included under a Collective Labour Agreement (CLA). An additional 1,833 contractors were employed at the mine. The Company is committed to maximising employment opportunities at the mine for local communities, and during 2018 over 74% of the total workforce was employed locally.

#### Scale of the Organisation in 2018

Total Number of Direct Employees	814
Total Number of Contractor Employees	1833
Total Workforce	2,647
Gold Poured	410,387 oz (12,764 kg)
Silver Poured	2,895,380 oz (90,056 kg)
Total Sales	US\$ 574 million
Gold	US\$ 522 million
Silver	US\$ 52 million
Total Capitalisation	US\$ 579 million

### THE MARTABE GOLD MINE

#### **OVERVIEW**

The Martabe Gold Mine is located in North Sumatra. Construction of the mine commenced in 2008 with production of gold and silver commencing in July 2012. As of December 2018, the Martabe Gold Mine had been in production for six and a half years with an approved mine plan extending to 2033. Since commencement, the mine has established a reputation for industry-leading operational, environmental and social performance.

Operations at the Martabe Gold Mine are based on three pits and a conventional carbon-in-leach (CIL) gold ore processing plant. Associated infrastructure includes haul roads, a tailings storage facility (TSF), raw water storage tanks, sediment control dams, a water polishing plant, an analytical laboratory, a high voltage switchyard, explosive magazines and several workshops.

Support facilities include administration and support buildings, a fuel depot, warehousing facilities, a plant nursery, an accommodation camp for the mine's fly-in fly-out workforce, sporting facilities and a medical clinic.





Martabe Gold Mine Location

#### **LOCATION**

[102-4]

The Martabe Gold Mine operates under a 30-year Contract of Work (CoW) with the Indonesian government. The area covered by this agreement is 1,639 km² and extends across four Regencies in the Province of North Sumatra, namely South Tapanuli, Central Tapanuli, North Tapanuli, and Mandailing Natal. The mine itself is located entirely within the Regency of South Tapanuli, with an active footprint at the close of 2018 of 479 hectares.

#### **SITE FACTORS**

The Martabe Gold Mine is located in a largely rural area dominated by native forest, palm oil and rubber plantations, and rice farming. Most of the support facilities are located adjacent to the trans-Sumatran highway and close to a number of villages within the sub-district of Batangtoru. Mining operations are located several kilometers away on an elevated hilly area bordering the Batangtoru Forest.

The majority of the landscape within the mining footprint before project construction was primary forest, secondary forest (already logged and otherwise disturbed) and rubber plantations. Due to the close proximity of villages, townships and extensive plantation areas, much of the area had experienced prior disturbance, including the presence of numerous walking tracks used by plantation workers.

The site is located within the watersheds of two streams, the Aek Pahu Hutamosu and the Aek Pahu Tombak. These waterways are potentially affected by runoff discharge from the site. The Batangtoru River is potentially affected by discharge from the site's Water Polishing Plant.

Annual rainfall at the site averages 4,553 millimetres. Rainfall averages are bimodal with peaks in March and November for Pinangsori (the closest source of long-term rainfall data).



#### **RESOURCES AND RESERVES**

There are six defined mineral deposits at the Martabe Gold Mine. These deposits are mostly of a type known as high sulphidation epithermal deposits and comprise part of a large-scale mineralised district which has the potential to host further gold and gold-copper deposits. As of December 2018, the Mineral Resource of the Martabe Gold Mine was 8.1 million ounces of gold and 69 million ounces of silver. Ore Reserves were 4.5 million ounces of gold and 34 million ounces of silver, equivalent to an additional 16 years of mine operations.

## MINERAL RESOURCES AND ORE RESERVES

PTAR reports on the size of its deposits using two standard definitions which are consistent with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code'):

- ► The Mineral Resource is the quantity of gold or silver in defined deposits for which there are reasonable prospects for eventual economic extraction. A Mineral Resource is determined from exploration and sampling.
- ► The Ore Reserve is the economically mineable part of the Mineral Resource. This estimate is derived from a Resource by applying numerous modifying factors such as cut-off grade, pit slopes, metallurgical factors and economic factors. It is the Ore Reserve that determines mine life, together with production rate.



#### **EXPLORATION**

In addition to supporting mining operations, the Martabe Gold Mine is the base for the Company's regional exploration program. PTAR considers the remaining potential at Martabe to be high due to the size of the system and the large area remaining to be explored. Through an ongoing exploration program the Company continually seeks to extend Ore Reserves and hence mine life.

Exploration activities in the field are generally limited to small drill pads in addition to several camps for workers. Material and personnel movement to the drill pads is normally by helicopter, minimising disturbance due to ground travel. The pads are rehabilitated following completion of drilling. 2018 was another very active year for exploration at Martabe, continuing on from the intensive drilling campaigns of 2016 and 2017. Twelve diamond drill rigs were operational for the majority of the year drilling over 85,000 meters of core.

Exploration facilities at the mine site include offices, a core shed and a helicopter operations base. At the core shed, drill core is logged for a range of parameters including lithology, alteration, mineralisation and degree of oxidation, and is then sampled for testwork at an off-site laboratory. Drill core has been archived at Martabe since 1997 for future reference if required.

#### MINING

At the Martabe Gold Mine, ore is mined from relatively shallow pits located on mineralised hills or ridges. Mining commenced at the Purnama pit in 2011 and mining at the nearby Barani and Ramba Joring deposits commenced in 2016 and 2017 respectively. In 2018, approval was received for mining at the Tor Ulu Ala deposit.

Mining activities in the field include clearing, surveying, drilling, blasting, grade control sampling, digging and trucking of waste rock and ore, ore stockpiling and pit dewatering. Waste rock from the pits is placed in the TSF embankment rather than in waste rock dumps as is done at most mines. Mining is conducted by a mining service contractor, currently, PT Macmahon Mining Services, utilising their own equipment.

As required, rock is blasted prior to mining, but where possible, free digging (mining without blasting) is implemented. Most ore is fed directly to a crusher, but based on grade and degree of fragmentation, some ore is placed in a stockpile near the crusher for breakdown or blending.

#### **PROCESSING**

The process plant at the Martabe Gold Mine is a conventional carbon-in-leach (CIL) plant with a capacity in excess of 5.6 million tonnes of ore per annum. The plant operates continuously except for maintenance shutdowns.

Compared with some other methods of mineral processing, the process of gold and silver extraction from the ore is relatively simple, the main steps being:

- Crushing and stockpiling of ore.
- Grinding and conversion of ore to form a slurry.
- Leaching of gold and silver from the slurry using cyanide.
- ► Adsorption of gold and silver in solution onto carbon granules.
- Removal of gold and silver from the carbon granules in a process called elution.
- ► Recovery of gold and silver through electrowinning.
- Smelting to produce dore bullion (gold and silver combined) bars ready for shipment.
   All bullion produced at the Martabe Gold Mine is refined in Jakarta.



After the gold and silver is removed from the slurry, the remainder, called tailings, undergoes a cyanide detoxification process which reduces cyanide concentration to low levels. The tailings are then pumped to the site's tailings storage facility (TSF) for permanent disposal.

Production at the Martabe Gold Mine requires utilisation of a wide range of inputs and yields a range of outputs in addition to gold and silver (below). All of these inputs and outputs require careful management across various activities such as transport, storage, handling, utilisation, collection, and disposal. The successful management of these activities without significant incident since commencement of operations reflects the systematic application of operational controls at the Martabe Gold Mine for risk mitigation.

## **Key Inputs and Outputs Martabe Gold Mine 2018**

Inputs	
Material	Quantity
Mined ore	5.665 Mt
Diesel fuel	15.390 MI
Electricity	146,288 MWh
Grinding balls	9,312 tonnes
Quick lime	6,599 tonnes
Sodium metabisulphite	5,133 tonnes
Cyanide	3,331 tonnes
Blasting materials	3,065 tonnes
Caustic	2,248 tonnes
Hydrochloric acid	1,032 tonnes
Tailings flocculent	482 tonnes
Activated carbon	236 tonnes
Hydrogen peroxide	184 tonnes
Other chemicals	124 tonnes
Oils & lubricants	43 tonnes

Outputs	
Material	Quantity
Gold	12.8 tonnes
Silver	90.1 tonnes
Overburden	6.059 million tonnes
Tailings	5.572 million tonnes
Emissions	191,236 tonnes CO <sub>2</sub> equivalent
General waste	1,613 tonnes
Industrial (B3) waste	529 tonnes

#### **SUPPLY CHAIN**

[102-9] [103-1] [103-2] [103-3]

The operation of Martabe Gold Mine is supported by numerous suppliers and service providers. Important examples of work done under contract to PTAR include:

- All mining at the site, and associated civil works, including the ongoing construction of the tailings storage facility, is conducted by a mining services contractor.
- ► The transport of goods purchased nationally and internationally is managed by a logistics services contractor. Almost all shipped goods pass through Sibolga Port before being trucked to site in road convoys, with PTAR managing associated on-site warehousing and stock control.
- Other major site contractors are involved in the provision of medical, laboratory, site security, camp administration and catering, geotechnical engineering and drilling services.
- ► The transport of bullion from site to a refinery in Jakarta and subsequent delivery of gold and silver to buyers is handled by a security contractor. A feature of the contractual provisions applying to this service is insurance for any loss of product once it leaves the site gold room until it is received by the buyer.

- Specialist advice and technical studies are provided by various consulting companies.
- Important contracts for the purchase of goods include those for bulk chemicals, grinding media, fuel, lubricants and spare parts.

The Company applies strict controls on the procurement of goods and services to ensure that cost, quality, product specification and other important commercial outcomes are consistently achieved:

- The evaluation of tender bids or quotations is conducted by specialist procurement staff independently of the end-user departments.
- Depending on value, all purchases must be based on an approved purchase order or contract, and all PTAR contracts contain a large number of standard conditions designed to protect Company interests, including a set of standard Health Safety and Environment (HSE) requirements for site contractors.
- Approval of purchase orders, contracts and payments for goods and services are made in accordance with a Delegations of Authority schedule which is set and approved by the Board, and performed within an on-line enterprise resource planning (ERP) system.

In addition to the procurement requirements outlined above, PTAR has a policy to support local business development, and preferentially purchases goods and services from local suppliers and contractors subject to cost and

quality criteria being met. At the close of 2018, the Company had 809 active suppliers, of which 75 or 9% were local:

Breakdown of PTAR Suppliers by Origin (2018)	
Local	75
Other Indonesia	532
Outside Indonesia	202
Total	809

#### **SALE OF PRODUCT**

[102-6]

All bullion produced at the Martabe Gold Mine is refined in Jakarta by a state-owned refinery and then exported by the Company and sold. Gold and silver are commodities, and as such the Company does not brand or advertise its product, and its sale of refined gold and silver does not attract particular stakeholder interest or concern. Customer purchase specifications are simple, namely percent purity and physical form (usually bar or granules), and instances of out-of-specification product have been extremely rare. The main customers are banks located in Singapore.

#### SIGNIFICANT CHANGES

[102-10] [102-48]

There were no significant changes to the organisation of PTAR, operations at the Martabe Gold Mine its supply chain or sale of product between 2017 and 2018 with the exception of changes to Boards and senior management resulting from a change of ownership in December 2018 (documented in detail in the PTAR 2018 Annual Report).

## ORGANISATIONAL AND GOVERNANCE ASPECTS

#### INTRODUCTION

The following sections detail organisational and governance aspects of particular importance to the implementation of sustainable development by the Company, including:

- Strategy for implementing sustainable development.
- ► Identification of key sustainability risks and opportunities.
- ► Precautionary Principle.
- External standards, codes and other industry initiatives.
- ► Corporate governance.
- ► Stakeholder engagement.

#### SUSTAINABILITY STRATEGY

The Company's sustainable development strategy is documented in its *Sustainability Policy*. This policy was developed following a review of two important protocols for assessing progress in implementing sustainable development, namely the United Nations *Sustainable Development Goals*<sup>2</sup> and the International Council on Mining and Metals (ICMM) *10 Principles*. The PTAR *Sustainability Policy* commits the Company to conduct all business activities in accordance with the following goals and principles:

- ► Ethical business practice, based on a sound system of corporate governance.
- ► Full compliance with applicable laws and regulations.
- ► Effective management of risk, based on well-developed management systems.
- ► Full environmental and social impact assessments for all new projects, and for significant changes to existing operations.

- Continual improvement of health and safety performance, with the safety and health of employees and local communities being paramount.
- Continual improvement of environmental performance, with protection of biodiversity and prevention of pollution being paramount.
- Protection of basic human rights within the organisations and in dealings with stakeholders.
- Respect for the cultures, customs and values of local communities.
- Contribution to the development of local communities, through assistance in meeting immediate needs, and also providing for sustainable development into the future.
- ► Transparent, effective, inclusive and open engagement with all stakeholders.

## IDENTIFICATION OF KEY SUSTAINABILITY RISKS AND OPPORTUNITIES

[102-15]

The Company's efforts in managing sustainability are directed towards the key sustainability risks and opportunities associated with the Martabe Gold Mine. The environmental and social risks associated with the Martabe Gold Mine have been systematically assessed in detail in the project's AMDAL and subsequent AMDAL Amendments as per regulation. These assessments include:

- ► Original AMDAL (2008).
- AMDAL Addendum addressing relocation of the plant site and other changes (2010).
- AMDAL Addendum addressing the Barani and Ramba Joring prospects (2016).
- AMDAL Addendum addressing the Tor Ulu Ala prospect and various operational changes (2018).

<sup>1.</sup> www.agincourtresources.com.

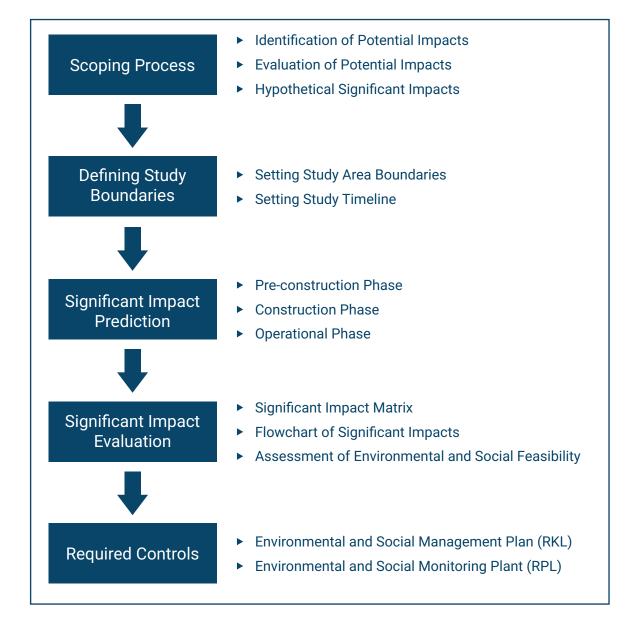
www.un.org/sustainabledevelopment/sustainable-development-goals.

Sustainable Development Framework: ICMM Principles (2015).



The assessment process applied in these studies is summarised as follows:

### ASSESSMENT PROCESS APPLIED IN THE AMDAL PROCESS FOR DETERMINING THE KEY ENVIRONMENTAL AND SOCIAL IMPACTS ASSOCIATED WITH A PROPOSAL



A separate source of information on environmental and social risks associated with the project that makes direct reference to the Equator Principles (2013) and International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability is an Environmental and Social Due Diligence Report conducted by consultants for the Martabe Gold Mine in 2017.

Integrating these two sets of information, the significant social and environmental impacts, risks and opportunities associated with the Martabe Gold Mine are summarised as follows:

#### **Key Impacts and Risks**

- ► Health and safety of employees and the community in general.
- Impacts on biodiversity.
- Loss of land productivity.
- Pollution of surface water and groundwater resources.
- Disruption to community values.
- Stakeholder uncertainty and concern.

#### **Key Opportunities**

- ► Fiscal¹ and economic benefits.
- Local employment and employee development.
- ► Improvement of local community services and community infrastructure.
- ► Local business development.
- Local government capacity-building.
- Support for community values.

The way in which these risks and opportunities are addressed by the Company is documented in detail in the following sections of this report.

#### PRECAUTIONARY PRINCIPLE

[102-11]

In the development and implementation of its sustainability strategy, the Company supports the "precautionary principle", which can be stated as "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation"<sup>2</sup>. Applying the Precautionary Principle can help an organisation to reduce or to avoid negative impacts on the environment.

## EXTERNAL STANDARDS, CODES AND OTHER INDUSTRY INITIATIVES

[102-11]

To date, PTAR has not formally endorsed or sought certification against external standards, principles, codes or other industry initiatives addressing sustainability. The Company applies a risk-based, rather than compliance-based approach to the management of environmental and social impacts and risks. Operational controls, such as the PTAR Codes of Practice, have been developed specifically for the site based on technical studies, reviews, risk assessments, benchmarking of industry-leading practice and expert advice.

A number of sources reflective of industryleading practice have been referenced in the development of the Company's operational controls, as follows.

Fiscal benefits are funds provided to government from the Company including but not limited to taxes and royalties.

United Nations Conference on Environment and Development (UNCED) 1992.

#### Industry Codes Referenced by PTAR in the Development of Operational Controls for Sustainability

Australian National Committee on Large Dams (ANCOLD) and International Committee on Large Dams (ICOLD) guidelines (various)	Applicable ICOLD and ANCOLD dam safety guidelines are referenced as minimum requirements by PTAR Code of Practice Safe Tailings Disposal and also design reports produced by the TSF design consultancy engaged by PTAR.
Business and Biodiversity Offsets Program (BBOP) Standard on Biodiversity Offsets (2012)	The BBOP Standard was referenced in biodiversity offset studies implemented by PTAR.
Equator Principles (2013)	Implementation of the Equator Principles at the Martabe Gold Mine has been audited several times as a due diligence measure for the benefit of third-parties.
Global Reporting Initiative (GRI) Standards (2017)	The GRI Standards and the preceding GRI-G4 Reporting Guidelines have been applied in the Company's sustainability reports.
ICMM 10 Principles for sustainable development (2003)	The ICMM 10 Principles for sustainable development were referenced in the development of the PTAR Sustainability Policy.
ICMM Position Statement on Preventing Catastrophic Failure of Tailings Storage Facilities (2016)	The critical controls documented in this position paper were referenced in a revision of PTAR Code of Practice Safe Tailings Disposal.
International Financial Corporation (IFC) IFC Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources (2012)	IFC Performance Standard No 6 was referenced in the development of PTAR Code of Practice <i>Biodiversity Protection</i> and in environmental risk assessments.
ISO 14001 (2004) and ISO 18001 (2007)	The PTAR HSE Management System was developed with reference to these international standards for environmental and safety management systems.
United Nations Sustainable Development Goals (2015) and ICMM Community Development Toolkit (2015)	These sources and others were referenced in the development of the current PTAR Community Development Plan.

## MEMBERSHIP OF INDUSTRY ASSOCIATIONS

[102-13]

In 2018, the Company was a member of the Indonesian Mining Association (IMA) and the Association of Exploration and Mining Development Indonesia (EMD).

## COMPANY ETHICS AND INTEGRITY

[102-16]

The Company is committed to maintaining high standards of corporate behavior and decision-making. These are made explicit through the PTAR Core Values of Growth, Respect, Excellence, Action and Transparency.

The application of these Core Values to operational decision-making in support of sustainable management is codified by means of key Company policies approved at the Board level, namely:

- Sustainability Policy.
- ► Health and Safety Policy.
- Community Policy.
- ► Environment Policy.

These policies are available to stakeholders at www.agincourtresources.com. These Core Values and associated Company policies are upheld across all aspects of the Company's operations by means of a strong corporate governance framework, as described in the following section.



#### **CORPORATE GOVERNANCE**

[102-17] [102-18]

#### **Overview**

Corporate governance is the system of rules, practices and processes by which a company is directed and controlled in order to ensure accountability, fairness and transparency in its relationships with its stakeholders. PT Agincourt Resources is committed to the implementation of good corporate governance (GCG) principles.

#### **PTAR Corporate Governance Framework**

Implementation of GCG by the Company is regulated by a corporate governance framework directed towards a range of key outcomes:

- Ensuring that all business decisions and activities are aligned with the Company's Core Values.
- Maximising corporate value and return to shareholders.
- ► Protection of Company assets.
- Ongoing improvement in operational performance in line with industry leading practice.
- ▶ Meeting all compliance obligations.
- ► Development of management competency throughout the organisation.
- Meeting corporate social responsibilities including protection of the environment, stakeholder engagement, community development and employee welfare.
- ► Management of enterprise risk.

The Company corporate governance framework is based on a hierarchy of bodies and appointments.

 The General Meeting of Shareholders is the highest decision-making body of the Company, with rights to appoint and dismiss members of the Boards of Commissioners and Directors, declare dividends and make changes to the Company Articles of Association.

- ► A Board of Commissioners oversees the actions of the Board of Directors and represents the interests of all stakeholders. It grants approvals for certain actions and a yearly business plan.
- An Audit Committee provides independent opinion to the Board of Commissioners, reviews the Company's financial reports, and monitors the implementation of corporate governance.
- ▶ A Resources and Reserves Governance Committee provides assurances to the Boards and Company shareholders that Resources and Reserves are developed in line with the JORC¹ code and Company policy.
- An Internal Audit Function is responsible for managing the Company's audit program, reporting to the Audit Committee.
- ► The Company is operated under the control of a Board of Directors, led by the Company's President Director. The Board of Directors is responsible for the operational performance of the Company, risk management and implementation of policy such as the Sustainability Policy.
- The operational running of the Company is delegated to a management team, led by the President Director, with divisional heads responsible for different aspects of the business.

The performance of the Company in implementing GCG is regularly reviewed at Shareholder and Board level based on a range of information including company reporting, audits and audited financial statements.

A professional code of practice that sets minimum standards for Public Reporting of Minerals Exploration Results, Mineral Resources and Ore Reserves.

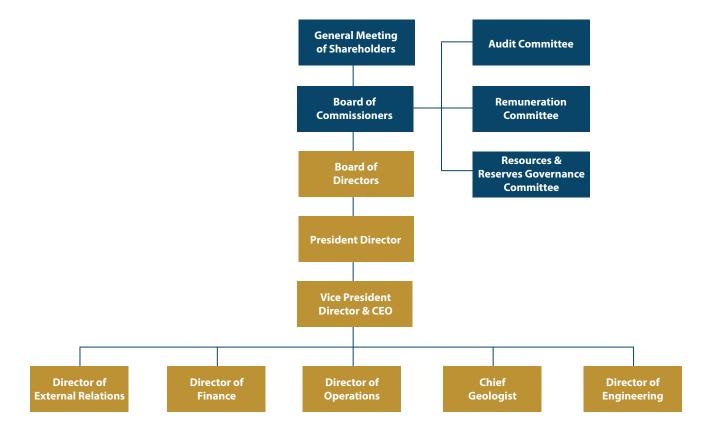
## Operational Controls for Good Corporate Governance

In the implementation of corporate governance, the Company complies with a range of Indonesian legal requirements, specifically Law number 40/2007 on Limited Liability Companies and regulations under the Indonesian Financial Services Authority. In addition to legal requirements, the Company operates under a range of internal controls, summarised as follows:

- Decision-making at the Board level is regulated by the PT Agincourt Resources Articles of Association, resolutions from General Meetings of Shareholders and annual business plans.
- Decision-making at the company level is regulated by Company policies such as the PTAR Sustainability Policy.

- ▶ Decision-making at the operational level is subject to a wide range of controls such as the Delegation of Authority Manual, which sets out levels of authority for approval of financial transactions, and *PTAR Codes of Practice*, which define accountabilities and required outcomes in regards to management of operational risk and compliance.
- ► Employees of PT Agincourt Resources are required to sign a Code of Ethics and Business Conduct. This commits every employee to outcomes related to company governance, legal compliance, ethical behavior at work and avoidance of conflict of interest.
- ► A Supply Chain Code of Conduct and Supplier Code of Conduct set out specific requirements for employees involved in procurement and suppliers respectively.

## KEY ELEMENTS OF THE PTAR CORPORATE GOVERNANCE FRAMEWORK



### STAKEHOLDER ENGAGEMENT

#### **OVERVIEW**

[102-40] [102-42]

Stakeholder engagement is the process by which a company communicates with its stakeholders to share information, understand stakeholder concerns and expectations, resolve issues and maximise opportunities for cooperation. The stakeholder groups of PT Agincourt Resources are diverse, with a wide range of views, beliefs, expectations and needs. Key amongst these are:

- ► Employees and their dependents.
- ► Local communities around the Martabe Gold Mine.
- Cultural and religious organisations.
- National, regional and local government and agencies.
- ► Non-government organisations.
- Suppliers and contractors.
- ► Educational institutions.
- ▶ The media.

Effective stakeholder engagement is an essential element in maintaining and strengthening the Company's social licence to operate. PT Agincourt Resources has been carefully managing stakeholder relationships since commencement of the Martabe project. The general approach has been to:

- ► Identify stakeholders and understand their needs, concerns and aspirations.
- Actively seek dialogue and build trust with all stakeholder groups, including potentially marginalised groups such as women, the elderly and youth.
- Provide timely and accurate information to stakeholders about all aspects of operations at the Martabe Gold Mine.
- Show patience in dealing with others and respect for their viewpoints, beliefs, cultural values and practices.

- Support local employment and implement fair and transparent processes for recruitment and procurement.
- Support regulatory bodies in the discharge of their obligations under regulation, including the implementation of approval processes and site inspections.
- ► Meet all government reporting requirements in an accurate and timely manner.
- Facilitate open reporting of concerns and grievances by stakeholders in relation to Company activities.

## KEEPING STAKEHOLDERS INFORMED

[102-43]

The Martabe Gold Mine remains the only mining operation in South Tapanuli, and many local stakeholders have a limited understanding of mining and the management of environmental and social impacts associated with mining operations. To help ensure a good understanding of operations at the Martabe Gold Mine amongst local stakeholders, the Company maintains an active broad-based communication program. This includes:

- ► Tours of the mine site for a broad range of stakeholder groups (1,077 participants in 2018).
- Publication of Tona Nadenggan (meaning "the good message" in the local Angkola language), a bi-monthly magazine that covers matters of interest to stakeholders including community development projects, environmental management and cultural activities.
- Publication of Saroha (meaning "one heart" in the Angkola language), a weekly newsletter for employees which covers community-related topics.





- Maintaining the Company website (www. agincourtresources.com) which includes access to sustainability reporting and information on community relations and community development activities.
- Wide distribution of the company's Sustainability Reports, in Indonesian, English and the Angkolan languages.
- Distribution of media releases, media briefings and site visits for media groups.
- Participation in a range of exhibitions, conferences and workshops.

#### **COMMUNITY CONSULTATION**

An important element of the Company's stakeholder engagement strategy is the Lembaga Konsultasi Masyarakat Martabe (LKMM). The purpose of this consultative forum is to facilitate dialogue between the company and local communities. Membership of the LKMM comprises elected representatives from 15 local villages, including participants from women's groups and youth groups.

## CONSULTATION WITH GOVERNMENT

[102-44]

One of the most active areas of stakeholder engagement for the Company is dialogue with government on matters ranging from approvals, reporting, compliance, oversight, cooperation on community development programs and general sharing of information.

## MANAGEMENT OF GRIEVANCES AND CONCERNS

The Company encourages unrestricted reporting from stakeholders of any concerns and grievances regarding Company activities, and maintains a grievance register to record such concerns. Any recorded grievances are assessed and provided with a response.



# OUR LOCAL COMMUNITIES

### **OUR LOCAL COMMUNITIES**

In many ways the most important stakeholder groups for PT Agincourt Resources are the local communities surrounding the Martabe Gold Mine. The people living and working closest to the mine are those most likely to be affected by the Company's day-to-day activities; and are the most important in terms of ongoing stakeholder support for Company operations. Aside from being of key importance in determining the Company's social licence to operate, local communities also contribute the large majority of people working at the mine, and so are direct and vital contributors to the ongoing performance and growth of the Company.

There are fifteen villages spanning the subdistricts of Batangtoru and Muara Batangtoru that are designated as Directly Affected Villages (DAVs) in terms of being potentially affected by operations at the Martabe Gold Mine. In total, these villages support a population of approximately 20,000.

Agriculture is the most significant employment sector for these villages. The most widely grown commodities are rice and corn. Cassava, sweet potatoes, peanuts, soya beans and green beans are also planted. Some local people also work in,



or operate, rubber and oil palm plantations. Trade and service industries are the next most important sources of employment after agriculture, with Batangtoru and Muara Batangtoru supporting many small retail businesses and other commercial enterprises such as banks and transport providers.

Participation in elementary and secondary school in these local communities is high, with opportunities for university education within the region and province, as well as elsewhere in Indonesia. There is a medical clinic and public health centres (*Puskesmas*) locally, with major hospitals one to two hours distant by road in Sibolga and Padangsidempuan.

The socio-economic conditions within local communities have been used as the basis of the Company's community development programs, which focus on health, education, infrastructure, agriculture, and economic development, as well as support for local cultural values and customs.

The communities around the Martabe Gold Mine comprise a number of ethnic groups, all originally from other areas in Indonesia. Most dominant and longest-established are three interrelated groups known as the Angkola, Mandailing, and Toba, often collectively referred to as Batak. The

majority of these are Angkolan, and Batangtoru is considered to be the cultural territory of the Angkola, with the Angkola language commonly used for daily communication. Also important in the development of Batangtoru, were the Javanese, who began arriving around 1906 to work in rubber plantations, and the Nias, who began arriving around 1925.

Local cultural institutions and customs have a strong influence on everyday life and the resolution of social problems in Batangtoru and Muara Batangtoru. Kinship amongst the Angkola is patrilineal (meaning the heads of families are male) with men typically occupying customary roles such as village head. Social identity is strongly defined by a person's family group or clan.

There are several types of land title in the local area, namely customary or *adat* land owned by clans collectively, privately-owned land, land owned by the state and companies, and land donated for public religious purposes. Land use away from settlements is dominated by forests, plantations, gardens, rice paddies and fish farming. Large areas of level land have made Batangtoru a strategic location for plantations, and Batangtoru Plantation (PTPN III) is the oldest state-owned rubber enterprise in Sumatra, established in 1906.



OUR APPROACH
TO MANAGING
SUSTAINABILITY
AND RESULTS
ACHIEVED 2018

### INTRODUCTION

This section describes the operational practices being applied at the Martabe Gold Mine for the management of sustainability<sup>1</sup> and the results achieved in 2018. These practices have been developed at the site based on industry experience, modified as required to meet site conditions, and improved over time based on operational experience and advances in knowledge. The Company's goal in this regard is the consistent implementation of best management practice<sup>2</sup>.

The GRI Standards state that the focus of sustainability reporting for an enterprise should be the material topics (or aspects) related to its activities, these being its significant economic, environmental and social impacts; or aspects that otherwise substantively influence the assessments and decisions of its stakeholders. However, before moving to these material topics, the first section below provides an overview of more general management resources and practices in support of sustainable development at the Martabe Gold Mine.

### **GENERAL MANAGEMENT ASPECTS**

### INTEGRATED HSE MANAGEMENT SYSTEM

Management Systems comprise collections of policies, procedures, standards, databases, checklists, training materials and other tools that when used together support continual improvement towards defined targets and goals. PT Agincourt Resources has implemented an integrated Health Safety and Environment (HSE) management system with reference to a range of external standards including ISO 14001 (Environmental Management Systems), OHSAS 18001 (Occupational Health and Safety Management Systems) and the Indonesian standard for mine safety management systems, known as SMKP Minerba.

Safety and environmental management needs are readily met by a single integrated management system because both disciplines address related areas of operational risk, and in doing so rely on many similar processes and controls. The PTAR HSE Management System largely comprises

documents, records, registers, databases and special purpose software, all readily accessible via the Company's intranet. The key operational controls in this system are the PTAR Codes of Practice, which describe the full range of outcomes required to address particular areas of risk, or standard procedures in support of risk management.

The range of controls documented in these Codes of Practice includes risk assessments, key accountabilities specifications, standard procedures, emergency arrangements and monitoring, and reporting. PTAR Codes of Practice of relevance to sustainable development outcomes include:

- ► Audits and Inspections.
- ► Biodiversity Protection.
- ► Emergency Management.
- ► General Workplace Safety.
- ▶ HSE Accountabilities.
- ► HSE Compliance.
- ► Hydrocarbon Management.

<sup>1.</sup> Referred to under the GRI Standards as the Company's "Management Approach".

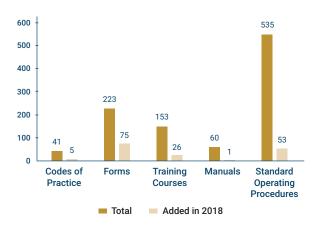
<sup>&</sup>lt;sup>2</sup> Established techniques or methodologies that, through experience and research, have proven to lead to a desired result. (BBOP 2012).

- ► Incident Management.
- Industrial Hygiene Monitoring and Measurement.
- ▶ Job Safety Environment Analysis (JSEA).
- Managing Pregnancy Related Work Restrictions.
- OHS Management Measurement, Monitoring and Improvement.
- Operational Risk Assessment and Control.
- ▶ Permit to Work.
- ► Personal Protective Equipment.
- ► Safe Tailings Disposal.
- ► Site Water Management.
- Waste Management.
- ▶ Work at Height.

To assist in monitoring performance against sustainability outcomes during the year, a range of key sustainability performance indicators are communicated in routine reporting. Examples include a Monthly Safety KPI Dashboard, which measures safety management across the departments using ten indicators, and a TSF Safety & Stewardship Report.

The status of the PTAR HSE Management System at the close of 2018, after over eight years of development, is summarised as follows (not indicated are various databases and software systems).

### Documents contained within the PTAR HSE Management System



### RESOURCING, PLANNING AND REVIEWING

All PTAR departments are involved in managing outcomes in support of sustainable development. Accountabilities in this regard are incorporated into departmental budgets, annual plans and life-of-mine plans. In addition, several PTAR departments are accountable for Company-level outcomes: Community Relations, Occupational Health and Safety, Environment, External Relations and Training and Development. Employees in these Departments comprised 20% of the entire Company workforce in 2018.

All PTAR roles have a job description that documents general and role-specific HSE and community management accountabilities and all staff have annual performance KPIs incorporating as appropriate key sustainability outcomes for the upcoming year. Performance in meeting these outcomes is assessed as part of documented annual performance reviews.

### STEERING COMMITTEES

Managing sustainability outcomes at the Martabe Gold Mine often requires contribution from a range of technical specialists and team leaders across a number of departments. To coordinate and direct effort in these situations the site operates a number of steering committees, each targeting a specific area of operational risk or opportunity. These include:

- Acid Mine Drainage Management Steering Committee.
- Gender Diversity Committee Steering Committee
- ► Life of Mine Approvals Steering Committee.
- Risk Management Committee Steering Committee.
- Safety and KTT Steering Committee.
- Site Water Management Steering Committee.
- ► TSF Safety Committee.

# MARTABE GOLD MINE MATERIAL ASPECTS

[103-1]

Material aspects are the significant economic, environmental and social impacts that may result from the Company's activities; or any other aspect of importance that may influence the assessments and decisions of stakeholders regarding to the Company. As required by the GRI Standards, a systematic process has been applied to identify the Company's material aspects (Appendix 1). The results of this evaluation are summarised as follows:

Management of these aspects can be correspondingly complex, with a range of short-and long-term, and sometimes competing, goals. The principles and approaches applied in managing these aspects at the Martabe Gold Mine and the results achieved in 2018 are discussed in the following sections.

#### Material Aspects - PTAR and the Martabe Gold Mine

Environmental	Social
► Environmental compliance	► Economic and fiscal benefits
► Disposal of tailings	► Health and safety
► Disposal of waste rock	► Local and national employment
<ul> <li>Disposal of hazardous industrial wastes</li> </ul>	► Gender diversity
► Site water management	► Employee development
► Rehabilitation and mine closure	► Community development
<ul><li>Protection of biodiversity</li></ul>	

### **ECONOMIC AND FISCAL BENEFITS**

### **OVERVIEW**

[103-1]

Economic performance is regarded as one of the three pillars of Sustainable Development, alongside environmental and social performance. Operation of the Martabe Gold Mine generates a range of economic impacts on local, regional and national economies. The net economic impact is highly positive and is a key contributor to the Company's implementation of sustainable development. The financial contributions by the Company can be divided into two classes, namely fiscal (payments to government) and economic (payments to the general public).

### **FISCAL BENEFITS**

[103-3]

Fiscal contributions by PTAR take the form of:

- ► Corporate Income Tax.
- Royalties on gold and silver sold.
- ► Personal Income Tax on employee wages.
- Various other taxes at Central and Regional government levels such as land and building taxes.
- ▶ Dividends.



One example is the five percent ownership of PTAR by PT Artha Nugraha Agung (PTANA), which is 70 percent owned by the South Tapanuli District government and 30 percent owned by the North Sumatra Provincial government. This was a voluntary divestment by the Company, that ensures the Regional and Provincial Governments receive fiscal benefit from operation of the Martabe Gold Mine (under the shareholders agreement, PTANA is required to allocate 40 percent of dividends to community development projects in the area surrounding the Martabe Gold Mine).

The Company's annual financial statements are audited by an independent accounting firm to support transparency in meeting fiscal commitments. The Annual Reports containing these statements are made available to the public on the Company's website.<sup>1</sup>

### **ECONOMIC BENEFITS**

[103-2] [201-3]

In addition to fiscal benefits, significant economic benefit passes directly to the community through salaries, wages and other benefits to employees. PTAR ensures that salaries, wages and associated benefits meet or exceed government minimum requirements, are in accordance with the PTAR CLA,

and are competitive both locally and nationally. In addition to health cover for employees and dependents fully funded by the Company, all national employees are enrolled in government social security and healthcare programs as required under regulation. These provide for work-related accident, death, provident fund and retirement benefits. An employee who reaches retirement age is entitled to receive severance pay, separation pay and other compensation as stipulated under manpower laws.

PTAR also supports the Indonesian economy through the preferential purchase of goods and services locally and nationally subject to quality and price criteria being met, and also makes direct financial contributions to community development programs and projects each year.

### **BUSINESS SUSTAINABILITY**

The Company operates a Martabe Improvement Program (MIP) to support ongoing improvement across all aspects of the business. Since inception in 2013, the MIP has consistently delivered improvements in asset utilisation and operational efficiencies, reflected by ongoing reductions in All-in Sustaining Cost (AISC).<sup>2</sup> Lower production costs allow for lower ore cut-off grades, supporting additions to Ore Reserves and a longer mine life.

<sup>1.</sup> https://www.agincourtresources.com/

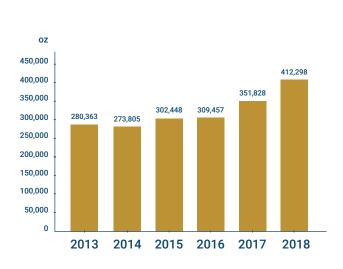
<sup>2.</sup> All-in Sustaining Cost (AISC) is a non-GAAP (Generally Accepted Accounting Principles) financial performance measure for gold producers.

### **RESULTS ACHIEVED 2018**

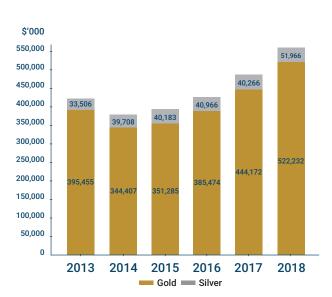
In 2018, the operational performance of the Martabe Gold Mine was outstanding, with new production benchmarks being achieved across a majority of key operating metrics such as gold produced and All-in Sustaining Cost (AISC).

This strong operational performance supported exceptional financial results for the year. A Net Profit After Tax (NPAT) of \$166.8 million for the year was a record for the Company, reflecting both higher sales volumes and lower costs.

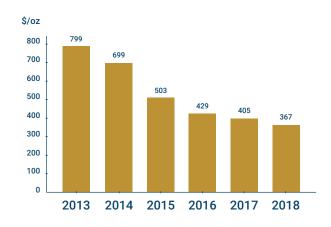
#### **Gold Sold**



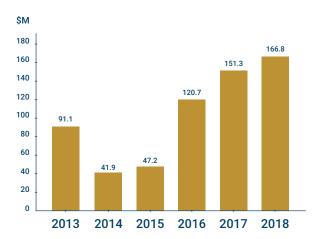
#### **Gold and Silver Revenue**



#### **All-in Sustaining Cost\***



#### **Net Profit After Tax (NPAT)**

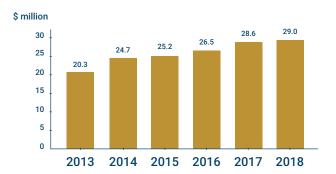


<sup>\*</sup> All-in Sustaining Costs (AISC) is a non-GAAP (generally accepted accounting principles) financial performance measure for gold producers.

As in previous years, the strong operational and financial performance of the Company in 2018 supported significant financial contributions to its stakeholders. These included:

- ➤ Tax and royalty payments to government amounting to \$126 million. Additionally, the South Tapanuli District government and the North Sumatra Provincial government received dividends through the ownership of 5% of PTAR totaling \$7.7 million.
- Wages and benefits paid to PTAR employees and contract staff amounting to \$29.0 million.
- ▶ Payments for the provision of goods and services by local suppliers amounting to \$ 11.4 million (the reduction in value from 2017 resulted from lower diesel consumption following switching to PLN grid power rather than the use of site gensets).
- Over \$1.3 million spent on community development programs (this value will rise and fall from year to year depending on the value of major infrastructure projects).

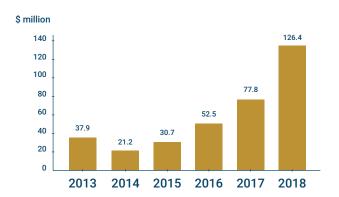
#### **Wages and Benefits PTAR Employees**



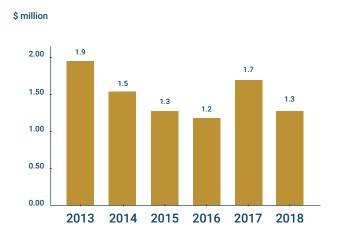
#### **Purchase of Local Goods and Services**



#### **Tax & Royalty Payments**



#### **Community Development Investment**



2018 was another excellent year for exploration at Martabe, continuing on from the intensive drilling campaigns of 2016 and 2017. Twelve diamond drill rigs were operational for the majority of 2018. Ore Reserves decreased by 1.1% in 2018 to 88 million tonnes, net of current year mining depletion. Contained Gold decreased by 6.3% or 0.3 million ounces net of depletion to 4.5 million ounces. Whilst 2018 saw a slight decrease in Mineral Resources and Ore Reserves, exploration activities during 2018 resulted in considerable upgrades to the classifications of the known Mineral Resources at Purnama and Ramba Joring, from Indicated to Measured. Deep drilling undertaken as part of the Underground Sulphide Study has identified high grade mineralisation which will be further targeted in the 2019 drilling program.

#### **Mineral Resources and Ore Reserves**



### **ENVIRONMENTAL COMPLIANCE**

### GENERAL MANAGEMENT APPROACH

[103-1] [103-2] [103-3]

The hierarchy of laws In Indonesia comprises, in the following order of the Constitution, Legislation, Government Regulations, Presidential Decrees and Regional Regulations. Legislation is passed by the legislative assembly (DPR) while regulations are generally passed by relevant ministerial departments to implement, interpret, or make more specific the laws that they administer and enforce. Provincial and district governments can also issue regulations.

Operations at the Martabe Gold Mine are accordingly subject to a broad range of environmental laws and regulations. Additionally, various permits for activities such as the discharge of treated water and the operation of temporary hazardous (B3) waste storage facilities set more specific compliance requirements for the site.

The most important environmental compliance requirements at the Martabe Gold Mine are in regards to the following activities:

- Discharge of water from site.
- Groundwater quality.
- Emissions (from generators and stacks).
- Handling, storage and disposal of hazardous waste.
- Placement of tailings.
- ► Clearing of vegetation.

The PTAR Environmental Policy commits the Company to maintaining compliance with all applicable legal requirements. To assist the site management team in this regard, PTAR Code of Practice HSE Compliance provides an overview of the important HSE statutory requirements applying to the Martabe Gold Mine, and specifies accountabilities for managing compliance with

these requirements. A Legal Database and an Operating Conditions Register are available on the Company intranet. Additionally, HSE compliance requirements across a range of key site activities are documented in various PTAR Codes of Practice.

To ensure that Company senior management remain well-informed of environmental compliance status, a monthly Environmental Compliance Report is issued by the Environmental Department that documents all compliance monitoring results and associated regulatory limits as well as the status of environmental permits.

To ensure the accuracy and independence of water quality compliance data the following controls are applied:

- Sampling is conducted by trained technicians according to standard protocol that ensures preservation of the sample prior to testing.
- All analyses are conducted by a certified and independent testing service provider located in Jakarta.
- A system of sample identification is used that prevents the receiving laboratory from knowing the sampling location, to avoid unintended bias in reporting of data.
- ► A formal QA/QC process is applied to minimise the likelihood of sampling and analytic errors (using sample blanks and duplicates).
- ► All results are managed in an environmental monitoring database.
- Water quality monitoring data is routinely reviewed by a consultant expert in tropical aquatic ecosystems, who also visits the site twice per year to audit water sampling practices.

### **RESULTS ACHIEVED 2018**

In 2018, the Company maintained its record of effective management of environmental compliance. To summarise, the key achievements in this regard, were as follows:

- Compliance with routine reporting requirements of permits and approvals.
- Compliance with stack and generator emission limits.
- Compliance with water quality limits applying to discharge from the Water Polishing Plant. This continued an unbroken record of discharge compliance since commencement of operations.
- Compliance with requirements applying to the handling, storage and disposal of hazardous (B3) waste.
- Compliance with environmental monitoring and reporting requirements set out in the Amdal Environmental and Social Monitoring Plan (RPL)
- Compliance with closure bond requirements.

A significant event in terms of managing environmental compliance was approval of an Amdal Addendum in May 2018. This study addressed a range of operational changes including:

- Mining of the Tor Uluala deposit.
- Haul road construction.
- Raising of the TSF embankment.
- Increasing processing plant throughput to 5.9 million tonnes per year.
- Utilisation of used oil in blasting.
- ► A 10% increase in maximum Water Polishing Plant discharge rate.
- Improving the management of site runoff water by lime dosing in sediment ponds to control pH.

### **DISPOSAL OF TAILINGS**

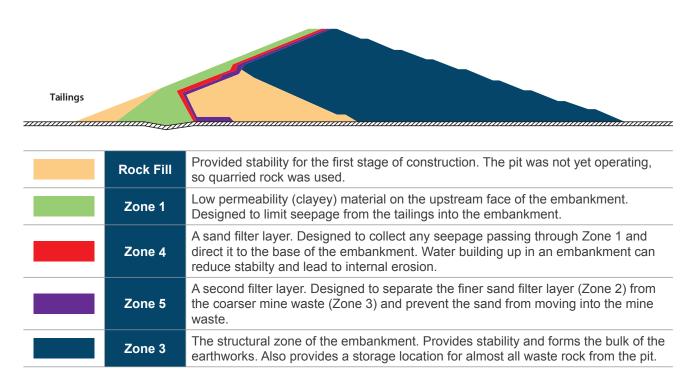
### GENERAL MANAGEMENT APPROACH

[103-1] [103-2] [103-3]

The process for extracting gold and silver from ore at the Martabe Gold Mine produces a waste stream called tailings, largely comprising water, ground rock, lime and residual cyanide. The large majority of gold mining operations dispose of

tailings in a Tailings Storage Facility (TSF)¹ and this is also the practice at the Martabe Gold Mine. The Martabe Gold Mine TSF comprises an engineered embankment in a valley with tailings placed in the containment space provided upstream of the embankment. The embankment itself is of conventional "rock-fill" downstream construction with several distinct internal zones each serving a particular function.

#### SIMPLIFIED CROSS-SECTIONAL VIEW OF THE MARTABE GOLD MINE TSF EMBANKMENT



The TSF embankment is progressively raised in height using run-of-mine waste rock in order to provide sufficient storage capacity for the ongoing production of tailings. When completed, the embankment crest will have a height of 112 meters above foundation (at centerline) and a length of 1,220 meters.

The safety of the TSF is of the highest importance to the Company. Key goals in this regard include:

- ► No uncontrolled release of tailings or water (through overtopping or damage to the embankment).
- Prevention of impacts on groundwater from seepage.
- Prevention of fauna deaths within the TSF itself.

Some sites practice Deep Sea Tailings Placement (DSTP), which can offer significant advantages over land-based tailings placement. DSTP is not an option for the Martabe Gold Mine due to the shallowness of local coastal waters.

- Ongoing control of acid mine drainage in the embankment.
- ► Rehabilitation of the structure following closure to a safe and stable condition.

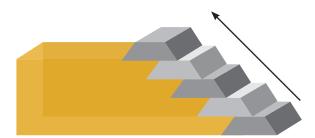
Minimising TSF risk requires the application of a diverse range of risk controls at the design, construction, operation and closure stages of a TSF. These controls include design specifications, construction methods, QA/QC programs, operational controls such as procedures, staff training, change management, condition monitoring, and inspections, reviews and audits. The most important of these controls are summarised as follows.

### **Key Risk Controls - TSF Design and Construction**

- The TSF design has been implemented by a geotechnical engineering consultancy recognised internationally for its expertise in this field.
- ► The method used to progressively construct the TSF embankment is known as "downstream lifting". This permits construction of a zoned rock-fill embankment that is inherently more stable

- than an embankments built using the "upstream lifting" method as practiced at some other mining operations.
- ► The specifications used for the design comply with dam safety guidelines published by the International Committee on Large Dams (ICOLD).
- ► Embankment stability has been recognised as a key performance criterion and the TSF has been designed to remain safe in the event of a Maximum Credible Earthquake<sup>1</sup> (MCE).
- ► The design freeboard is equivalent to the Probable Maximum Flood<sup>2</sup> (PMF). The TSF design has been reviewed and approved by the Indonesian Dam Safety Committee.
- ► A consultant engineer is accountable for ensuring that the construction of the TSF is in accordance with the approved design, and that a construction QA/QC program is in place to appropriate standards. This role is equivalent in function to the "Responsible Engineer" referenced in ANCOLD Guidelines on Tailings Dams (ANCOLD 2012).
- Construction QA/QC records are certified and safeguarded to provide a permanent record of compliance with the engineering specifications.

#### Upstream lifting Method of TFS Embankment Construction



Upstream lifting using dried tailings to extend the wall.

#### **Martabe Gold Mine TSF**



Downstream lifting using engineered compacted zones of rock, clay and sand

<sup>1.</sup> The most extreme earthquake that could be expected for a location, as based on geologic and seismologic data.

<sup>2</sup> The volume of water that may be expected from the most severe combination of meteorological and hydrologic conditions reasonably possible.

#### **Key Risk Controls - TSF Operation**

- Before leaving the process plant, all tailings are treated to reduce cyanide to low levels (below 50 mg/L) to ensure no risk to wildlife coming in contact with water held in the dam. This level is as specified by the International Cyanide Management Code.<sup>1</sup>
- ➤ Tailings are deposited in the TSF in thin layers onto a tailings "beach", allowing each layer to settle, drain and dry before being covered with a new layer of fresh tailings. Benefits of this method include increased strength of the placed tailings and destruction of residual cyanide with exposure to natural ultraviolet light.
- ▶ Water held in the TSF pond is kept to a minimum (excess water held within the pond of a TSF may increase the risk of overtopping, reduce the stability of the embankment, impair tailings consolidation and increase seepage rates). Excess water at the TSF is removed by pumping to a Water Polishing Plant (WPP) for treatment before release from site.
- ► A comprehensive TSF monitoring program in place for the detection of any changes that might lead to unsafe conditions. This includes monitoring of water levels within the embankment, embankment movement due to long-term settlement or seismic activity, available freeboard, seepage rates and surface erosion.

As a final measure to ensure that the ongoing design, construction and operation of the TSF is reflective of industry leading practice, the Company engages expert consultants to conduct an annual independent review of all aspects of TSF safety. To ensure that the senior management team remain fully informed regarding TSF risk, and the status of action to further minimise risk, a TSF Stewardship Report is issued each month.

#### **RESULTS ACHIEVED 2018**

In 2018, a total of 5.57 million tonnes of tailings was placed in the TSF without incident and in accordance with operational requirements laid out in Code of Practice Safe Tailings Placement. Key outcomes in this regard included:

- Consistently good sub-aerial deposition of tailings coupled with ongoing minimisation of TSF decant pond volume, resulting in extended beaching of tailings away from the embankment.
- Maintenance of a large spare freeboard to accommodate storm inputs (typically in excess of 10 million cubic meters compared with a Probable Maximum Flood of 5 million cubic meters).
- Ongoing cyanide detoxification at the process plant prior to tailings discharge.
- No significant concerns identified in the TSF condition monitoring program.
- ► No measurable impacts on local groundwater.
- ▶ Ongoing construction of the embankment in accordance with the approved TSF design.
- Ongoing monitoring of TSF construction and performance by the Company's geotechnical engineering consultancy.
- ► Implementation of a third annual independent review of the safety of the facility conducted by TSF experts.

Special initiatives implemented in 2018 to further reduce TSF risk included:

- ► Completion of a rock extension to support the final toe of the embankment.
- Installation of a new tailings deposition system to improve control of tailings deposition and tailings beach density.
- Planning of a significant drilling and instrumentation program across the embankment to augment condition monitoring (to be completed in 2019).

<sup>1.</sup> The "International Cyanide Management Code For the Manufacture, Transport, and Use of Cyanide In the Production of Gold" (Cyanide Code) was developed by a multi-stakeholder Steering Committee under the guidance of the United Nations Environmental Program (UNEP) and the then-International Council on Metals and the Environment (ICME).

- Commencement of use of satellite data (InSAR¹) to measure movement of the embankment.
- Review of the seismic hazard assessment applied in the TSF design reports by a team of experts with particular knowledge of Indonesian conditions.

### REVIEW OF RECENT TSF FAILURES

Greater scrutiny of TSF safety internationally has been triggered by two recent TSF failures in Brazil. In both cases the embankments had been constructed using the upstream lifting method. The mode of failure in both cases ("liquefaction") is specifically associated with embankments constructed in this manner, and is not associated with rock-fill zoned embankments built using the downstream lifting method, such as seen at the Martabe Gold Mine.

The safety of the Martabe TSF has been of the highest priority to PTAR since project commencement. The general causes of TSF failures are well understood by geotechnical engineers involved in TSF design and construction. For all significant TSF failures world-wide, elementary engineering mistakes or poor operational practices have been implicated. The most common cause of TSF failure is mismanagement of water, either excessive levels of water within the decant pond or within the embankment itself. At the Martabe Gold Mine, excess water in the TSF following rainfall is quickly removed by pumping to the site's Water Polishing Plant (WPP) for treatment and then release. Construction of a properly designed zoned rock-fill embankment and minimisation of contained water as implemented at the Martabe Gold Mine can greatly reduce TSF risk.

<sup>1.</sup> Interferometric synthetic aperture radar, a technique used in remote sensing. This method uses satellite data to generate maps of surface deformation, potentially measuring millimeter-scale changes in deformation over spans of days to years.

### **DISPOSAL OF WASTE ROCK**

### GENERAL MANAGEMENT APPROACH

[103-1] [103-2] [103-3]

Waste rock is the second major waste stream at the Martabe Gold Mine requiring careful management to avoid environmental impacts. Rock that must be mined to allow pit development but that contains insufficient gold to warrant processing is called waste rock. The Martabe Gold Mine is notable in that construction of the TSF embankment will utilise almost all the waste rock to be produced under the current mine plan. As a result there has been no requirement to dispose of waste rock in large dumps as practiced at most other mining operations. The TSF embankment is therefore a fully engineered structure addressing both tailings and waste rock disposal requirements for the site.

As for many metalliferous mines, some of the waste rock at the Martabe Gold Mine has the potential to form acid when disturbed by mining, due to the oxidation of naturally occurring sulphide minerals contained in the rock. Rainwater moving through such material may become acidic and accumulate elevated levels of metals. This process, known as acid mine drainage (AMD), may have significant potential to cause pollution if not properly controlled.

AMD can be successfully managed by a number of methods, most commonly by sealing potentially acid-forming rock so that the rate of oxygen entry and hence the rate of acid production is reduced to very low levels. Usually this sealing is achieved by the use of compacted layers of rock or clay. This is the strategy being successfully implemented at the Martabe Gold Mine. Rock known to be potentially acid forming is sealed within the TSF embankment by up two meters of

compacted rock or clay that functions as a barrier to oxygen entry. The task of identifying waste rock as Non Acid Forming (NAF), Potentially Acid Forming (PAF) or some intermediate category is made more challenging at the Martabe Gold Mine by a complex geology featuring a range of rock types in different states of weathering and containing variable quantities of sulphides.

The Company has implemented a range of technical studies over a period of years in order to develop a best-practice AMD management program. The key milestones are summarised as follows.

- Detailed rock waste characterisation studies.
- Development of waste rock types or classes based on geochemical and physical criteria.
- ▶ Production of life-of-mine waste schedules.
- ► Development of a sealing layer specification based on sophisticated computer modelling with verification testing in the field.
- Progressive implementation of selective waste placement and sealing.
- Performance measurement to validate waste sealing design and implementation.

All key technical teams at the Martabe Gold Mine, including exploration, mine geology, mine planning, TSF construction and environment have played an important part in the development of the site's AMD management program. The results of this work have been documented in the Martabe Gold Mine AMD Management Technical Manual. This manual provides technical guidance for all aspects of waste rock management and an overall framework for AMD management at the site. More detailed information on AMD management at the site can be found in several papers published on this topic.<sup>1</sup>

<sup>1.</sup> Progressive rehabilitation — Martabe Gold Mine as a case study. 11th International Conference on Mine Closure, Perth.

A risk-based approach using process flow diagrams for operational waste rock classification — case studies. 11th International Conference on Mine Closure, Perth. Progressive Management of AMD Risk During Construction of an Integrated Waste Storage Landform — A Case Study at Martabe Gold Mine, Indonesia. 13th International Mine Water Association Congress. Finland.

Integrated life of mine waste characterisation, scheduling, placement planning and quality control to achieve progressive closure. 13th International Conference on Mine Closure, Perth.



To ensure that the site is implementing industry best practice in the management of waste rock, the Company engages an AMD consultant with broad international experience to review waste rock management at the site on an ongoing basis.

### **RESULTS ACHIEVED 2018**

In 2017 a total of 6.0 million tonnes of waste rock was placed in the TSF embankment without issue and all waste rock identified as potentially acid forming was progressively sealed by compacted rock layers in accordance with the site's AMD management program.

Ongoing progress in implementing the site's AMD management program in 2018 included:

- ► The effectiveness of the waste rock sealing strategy was confirmed by data from three monitoring stations installed in the TSF embankment. These results continued to indicate very low levels of oxygen ingress through sealing layer and no indication of oxidation at depth in the embankment.
- An ongoing QA/QC testing program confirmed constructed sealing layers continued to meet required compaction specifications.

- ▶ In order to further investigate the geochemical characteristics of selected waste rock types, "kinetic" tests were established at site (involving the regular application of water to containers of waste rock and collection and analysis of the leachate).
- ► The life-of-mine waste rock schedule was updated to include all four approved pits.
- ➤ The toe of the TSF was completed including a final layer of growth media on which was established rapidly growing cover crop species.
- A drilling program on the embankment was completed to provide samples for testing and validation of internal embankment conditions.

- ► A waste characterisation program for the Ramba Joring pit was completed.
- A waste characterisation program for the Tor Uluala deposit was commenced, with 200 samples collected for detailed geochemical analysis.
- A grade control program was continued for the three operational pits (Purnama, Barani, Ramba Joring), producing more than 1,000 samples per month for AMD testing.
- ► A three month rolling waste schedule was refined to ensure integration between the mine plan, waste rock production and the TSF embankment build plan. Waste rock delivery is now embedded as a priority for mine planning and operations.

## MANAGEMENT OF HAZARDOUS WASTES

### GENERAL MANAGEMENT APPROACH

[103-1] [103-2] [103-3]

Indonesian Law No. 32/2009 on Environmental Protection and Management defines hazardous and toxic waste ("B3 waste") as any waste that can cause pollution or harm the health of humans and other living organisms. Any party involved in the placement, storage, transport or treatment of B3 waste must have a permit for these activities. As is typical for all mines, the Martabe Gold Mine produces a range of waste types that classified under regulation as B3 waste, such as:

- ▶ Tailings.
- Waste oil and greases.
- ► Waste process chemicals.
- ▶ Used paint and chemical containers.
- ► Batteries.
- ► Computer and printer scrap parts.
- Medical waste from the site clinic.

PTAR has a permit for tailings placement in the site's TSF and permits for temporary B3 waste storage facilities at site. With the exception of tailings, all B3 waste is transported to a commercial off-site licensed waste processor.

Given the importance of B3 waste management, the Company has in place the following controls to ensure correct practices are followed:

PTAR Code of Practice Waste Management sets out mandatory requirements for B3 waste management at site applying to all PTAR and site contractor employees.

- B3 waste management requirements are included in the scope of the PTAR Workplace Condition Inspection (WCI) program.
- ► A PTAR training course for B3 waste management is available.
- ► Key B3 waste management requirements are presented in the site HSE Induction for new employees and are also addressed by the site HSE poster program.
- ► Any B3 waste non-compliances, and the status of contracts with B3 waste transport and processing contractors, are reported to senior management each month in the Environmental Compliance Report.
- Remaining capacity in the site's temporary B3 waste storage facilities is reported at the PTAR daily production meeting.

#### **RESULTS ACHIEVED 2018**

A total of 529 tonnes of site waste classified as hazardous and toxic (B3) was produced at the Martabe Gold Mine in 2018. All B3 waste management requirements were implemented without incident, including labelling, temporary storage in permitted site facilities, and delivery to a licensed waste processor for treatment.

In support of more efficient management of B3 waste, an additional three temporary waste storage facilities were constructed and permitted in 2018. The Amdal Addendum approved in May 2018 describes the use of waste oil in blasting as is practiced at other mine sites in Indonesia. This allows PTAR to implement this practice when ready.

### **SITE WATER MANAGEMENT**

### GENERAL MANAGEMENT APPROACH

[103-1] [103-2] [103-3]

Management of site runoff water is a common material aspect for open-cut mines in the wet tropics. Several factors need to be taken into account in the development of mine water management systems so that the risk of non-compliances and/or downstream environmental impacts is minimised:

- Surface mining typically exposes large areas of soil and disturbed rock. Rainfall on these areas will mobilise sediments and sometimes metals and acidity, and site runoff water may require treatment before being released from the site.
- Almost all mineral processing plants require large amounts of water. This is especially true for gold mines where the process of extraction is based on a rock slurry.
- Pits and site infrastructure such as TSFs can disrupt natural catchments and result

- in a significant reduction of clean flow available for downstream users.
- Waterways and local groundwater are often important resources for local rural communities; typically utilised for irrigation and bathing, and sometimes as a source of domestic water.
- Downstream waterways often have significant biodiversity values that need to be protected.

At the Martabe Gold Mine all of these factors are important.

#### **Site Water Balance Model**

The first step in successful water management at a mine site is a water balance model. This is a key tool for developing a site water management strategy as well as specifying water management infrastructure (such as ponds, structures, pumps and piping systems).





The Martabe Gold Mine uses a complex site water balance model for planning purposes that was developed by specialist consultants. It is a "probabilistic" model, which means that it takes into account the wide natural variability of local rainfall by running many simulations of different storm events and integrating the results to produce estimates of water accumulation for given levels of likelihood.

One key finding from water balance modelling done in the planning stage for the Martabe Gold Mine was that the site would have a net positive water balance, meaning that water would need to be discharged during operations. This important outcome is discussed in the next section.

### **Site Water Management System**

In recognition of the importance of water management, the site operates a carefully designed water management system, the operation which is prescribed by Code of Practice Site Water Management. This system is operated towards the following objectives:

- Minimising the risk of non-compliant releases from site (exceedances of water quality limits prescribed by Ministerial Decree No. 202/2014).
- Minimising the risk of environmental impacts on downstream waters, including protection of aquatic biodiversity.
- Ensuring continuity of raw water and process water supply to the process plant sufficient to meet production needs.
- Minimising water held in the TSF at all times.

Under the site water management system, runoff from the process plant area, the TSF embankment and most areas disturbed by mining cannot directly leave the site but rather flows to the TSF or to large water management ponds. This arrangement provides for very good control over the quality of water leaving the site.





### **Site Discharge**

Rainfall at the Martabe site averages approximately 4,500 mm per year, more than at many mines. Due to this high rainfall, the site has a net positive water balance, meaning that rainwater accumulates in the site's tailings storage facility (TSF) and associated water management structures during the rainy season. In order to maintain adequate freeboard at the TSF, excess water must be released into the nearby Batangtoru River almost continuously (following treatment in the Water Polishing Plant).

A great deal of effort has been directed by the Company to ensure that discharge from the WPP meets compliance requirements and avoids any significant environmental impact in the Batangtoru River, and in keeping local stakeholders fully informed of ongoing performance in this regard.

As required, excess water from the TSF and water management ponds is pumped to the WPP to remove contaminants. Ferrous sulphate is used to remove metals, peroxide is used to destroy any residual cyanide, and flocculants are used to



settle fine rock solids. Discharge to the Batangtoru River is fully permitted under Indonesian law and is managed to meet water quality limits in Ministerial Decree No. 202/2014. To ensure ongoing compliance with these requirements, the site implements an ongoing quality assurance program that includes water sampling at the WPP every two hours with analysis on-site by an analytical laboratory. Duplicate samples are sent to an off-site independent laboratory to ensure the accuracy of the test results.

As a means of providing an independent assessment of the management of discharge to the Batangtoru River, the University of North Sumatra has been engaged by PTAR to conduct a River Health Monitoring Program addressing water quality in waterways receiving discharge or runoff water from the site. Under this program, water quality and aquatic life in the Batangtoru River is surveyed four times per year, at the point of discharge into the river and also at locations upstream and downstream of this point. This monitoring program will be implemented over the life of the mine.

Given the public interest in discharge of treated water to the Batangtoru River, an independent monitoring team was established in 2013 by Decree of the Governor of North Sumatra with the full support of PTAR. The role of this team is to assess compliance with the site's discharge permit by means of an independent water monitoring program. This team comprises representatives from local government, local community and the University of North Sumatra, and results from this program are announced at public meetings held at the mine every three months.

### **RESULTS ACHIEVED 2018**

During 2018, water at the site was managed in accordance with the requirements of the site water management system without significant incident. Key outcomes included:

- ► A record 17.4 m³ of water was discharged from the Water Polishing Plant in full compliance with the site's discharge permit and Ministerial Decree No. 202/2014. This maintained an unbroken record of discharge compliance since commencement of operations.
- ► For the fifth consecutive year, the Integrated Team established by Decision of the Governor of North Sumatra provided independent verification of WPP discharge compliance. The team supervised sampling of discharge each month in 2018 and participated in four quarterly public meetings for the announcement of water quality results.
- ► The University of North Sumatra continued to monitor the condition of streams and rivers surrounding the site under a River Health Monitoring Program that has been running since 2014. Under this program, aquatic life at sites in the Batangtoru River was surveyed four times in 2018.
- ➤ The Amdal Addendum approved in May 2018 included a risk assessment to support an increase in maximum WPP discharge rate of 10 percent. This will allow full utilisation of the existing capacity of the WPP once a new discharge permit is issued.
- Equipment to allow continuous flow monitoring was installed at a water quality compliance point in the Aek Pahu stream (located downstream of the TSF and associated sediment ponds).

### **SITE REHABILITATION**

### GENERAL MANAGEMENT APPROACH

[103-1] [103-2] [103-3]

The activities required to return areas at the mine to a safe, stable and productive state after completion of mining is called rehabilitation. At the Martabe Gold Mine, the long-term goal of the site rehabilitation strategy generally is restoration of a forest ecosystem similar to that previously disturbed (one of the reasons being the restoration of forest habitat). Rehabilitation

techniques for mines in the tropics are well established and there are several mines in Indonesia that have successfully rehabilitated many hectares of mined area to tropical forest.

PTAR is also committed to the implementation of progressive rehabilitation, meaning that land is rehabilitated as it becomes available, rather than waiting for mine closure. In cases where a surface is not yet ready for final rehabilitation, such as haul road batters, a temporary cover of legumes may be used to stabilise the site and minimise erosion due to rainfall.



The general steps in the rehabilitation of disturbed areas at the Martabe Gold Mine are similar to that at most other mines, namely:

- Reshaping of the area to achieve a design slope.
- ► Installation of runoff control structures such as contour drains.
- Spreading of topsoil over the area.
- ► Application of fertiliser.
- Spreading of seed (usually a mixture of legumes).
- ▶ Hand planting of tree seedlings.
- Ongoing maintenance including weeding and additional fertiliser applications.

To support the site rehabilitation program, a plant nursery has been established at the mine. This provides an ongoing supply of native tree species for planting. Topsoil management is an important part of the site rehabilitation program. The placement of thin layers of topsoil over the

final surface areas being rehabilitated can yield dramatic improvement in the number of plant species present and seedling growth rates. This benefit comes from topsoil containing seed and root stock of native species, bacteria involved in the breakdown of plant organic material, and fungi that form associations with tree roots and assist with nutrient uptake. Accordingly, soil from areas being cleared is stripped and stored in temporary stockpiles for later use in the rehabilitation program.

#### **RESULTS ACHIEVED 2018**

During 2018, an additional 4.6 hectares of disturbed area was rehabilitated, increasing total area rehabilitated to 18.3 hectares. An additional 31.0 hectares in total had been stabilised with cover crops by the end of the year. A total of 3,640 seedlings were planted during the year, with 3,122 seedlings comprising 42 species available in the site nursery at the close of the year.

### **MINE CLOSURE**

### GENERAL MANAGEMENT APPROACH

Following completion of mining and processing, with all mineable reserves having being utilised, disturbed areas at the Martabe Gold Mine shall be returned to a safe, stable and productive state. This stage of operations is called mine closure. The closure strategy for the site is documented in an approved *Mine Closure* Plan (MCP), summarised as follows:

- Successful mine closure requires careful planning based on a range of detailed technical studies. These studies will be completed during operations according to closure study timetable reviewed and updated annually.
- After completion of processing, the process plant and associated infrastructure such as offices and workshops will be removed. Residual chemicals will be collected for delivery to a licensed waste processor. Concrete foundations will be broken up or covered with rock and soil.
- ▶ The surface of the TSF embankment will be covered with layers of rock and soil and then revegetated. After a period of drying and consolidation the surface of the tailings beach will also be covered with layers of rock and soil and revegetated. The lowest part of the beach will be connected to a rock-lined drain to allow rainwater runoff to safely exit the structure.
- Mining of the various pits will be scheduled so that as far as possible completed pits can be backfilled with waste rock from active areas of mining prior to final rehabilitation.
- Potentially contaminated areas such as workshops and chemical storage areas will be surveyed by soil sampling and remediated as necessary prior to rehabilitation.
- Most haul roads and tracks will be ripped by bulldozer and revegetated. The main haul roads connecting the pits and the process plant area will be retained to allow ready access for follow-up work and inspections.

- Some water management infrastructure including the WPP will remain operational for some years following closure to allow for ongoing treatment of mine water until all sites are fully rehabilitated.
- To support closure activities, a small workforce shall be maintained at the site for some years after completion of operations. Also, the Company will maintain an environmental monitoring program at the site until relinquishment.

Mine closure requires significant funds, and there are examples around the world where mining companies have completed operations with insufficient funds remaining to properly implement mine closure. As in many countries, the Indonesian government has implemented a system to address this risk. Under government regulation MEMR 18/2008, every mining company in Indonesia must estimate mine closure costs and pay an annual closure bond during operations to cover this expenditure. These funds become available for use by the company at mine closure.

The value of the closure bond is based on a detailed estimate of mine closure costs documented in a Mine Closure Plan (MCP). PTAR has an approved mine closure plan for the Martabe Gold Mine, and is implementing closure bond payments in accordance with the regulation. This plan shall be updated with every significant expansion of activities at the site. The original MCP for the site was submitted in 2014. A revision taking into account the Ramba Joring and Barani pits and TSF expansion to RL 360 was submitted in 2017.

### **RESULTS ACHIEVED 2018**

Planning for mine closure was progressed with a second mine closure workshop conducted in June 2017. This was the second of a planned program of annual workshops, and was attended by consultants and mine management. The scope of this meeting included an update on the site's AMD management program and a detailed review of the current mine plan, rehabilitation materials balance and opportunities for back-filling of pits.

### PROTECTION OF BIODIVERSITY

### GENERAL MANAGEMENT APPROACH

[103-1] [103-2] [103-3]

Biodiversity can be defined as the variability amongst living organisms and the ecological complexes of which they are a part. The importance of protecting biodiversity is receiving increasing attention from the scientific community, the mining industry, financial institutions, government agencies and the general public.

All mining operations that disturb natural vegetation will have some impact on biodiversity, at least until the site has been rehabilitated. The disturbed footprint of the Martabe Gold Mine is partly located within an area of natural forest, and although this area is small compared to the total area of nearby forest, the management of impacts on biodiversity is an important issue for the Martabe Gold Mine. The management of impacts on biodiversity is

addressed by PTAR Code of Practice *Biodiversity Management*. This document operational controls required to minimise impacts on biodiversity including:

- Minimisation of the area of disturbance. Any clearing of vegetation at the Martabe Gold Mine must be approved under a Land Access & Disturbance Request (LADR).
- Restoration of habitat by rehabilitating disturbed areas to a tropical forest association similar to that of nearby undisturbed forest.
- Minimisation of any impacts on downstream waterways.
- Reporting of sightings of any threatened fauna in the project area.
- A ban on any fauna collection or hunting onsite.
- ► Hazardous waste disposal offsite.



Although these measures will significantly mitigate impacts on biodiversity, the Company commissioned studies to assess the feasibility of implementing a biodiversity offset for the Martabe Gold Mine. Biodiversity offsets are measures that protect or enhance biodiversity undertaken specifically to compensate for unavoidable biodiversity impacts associated with a project. Often these offsets are located in a different location to the project.

### **RESULTS ACHIEVED 2018**

During 2018 there was no unauthorised clearing of vegetation at the site. Fauna and flora surveys were conducted as part of impact assessment studies addressing the planned Tor Ulu Ala pit area.

For the second consecutive year, the Company continued sponsorship of a non-government conservation organisation (NGO) active in the protection of endangered forest fauna in Sumatra. Also, in December 2018 a decision was reached to support a second NGO seeking funding for a tiger conservation program in the Batangtoru Forest.



### **HEALTH AND SAFETY**

### GENERAL MANAGEMENT APPROACH

[103-1] [103-2] [103-3]

At the Martabe Gold Mine there is no operational outcome more important than worker safety. Any accident is preventable, but it is also true that mining operations contain many hazards in a complex and varying work environment. Minimising the risk of accidents at the Martabe Gold Mine requires consistent attention to three basic factors, namely workplace condition, worker competency, and worker behavior. These are addressed by the PTAR HSE Management System (see above). Under this system, the risk of workplace accidents is addressed by a range of operational controls, for example:

#### **Golden Rules**

The Martabe Gold Mine Golden Rules are simple safety rules designed to protect workers from the most common causes of serious accidents in the mining industry. All people working at the Martabe Gold Mine receive training in the Golden Rules before commencing work. These rules are mandatory and an employee who knowingly breaches a Golden Rule and places himself or others at risk faces a final written warning. The Golden Rules are supported by a training course, pocket book, posters and a pictorial "comic book".

#### Take 5

Take 5 is the simplest safety procedure at the Martabe Gold Mine. As the name suggests, it takes less than five minutes to conduct a Take 5. It comprises a simple checklist that every worker should complete before starting a job, and is designed to assist a worker to identify hazards associated with the work and the required controls for the job to be done safely.

### Job Safety and Environmental Analysis (JSEA)

JSEA is a team-based approach to planning work so it can be done safely. It entails the step-by-step breakdown of a job into activities, the identification of hazards associated with each activity, and identification of the required controls to ensure safety. The JSEA should be completed by the work team immediately before the job is commenced and each worker must sign it to confirm that they understand the hazards and required controls.

#### **Permit to Work (PTW) System**

Permit to Work (PTW) systems are in common use across the mining industry and are used to ensure the safety of workers involved in the repair or modification of machinery and equipment, especially when the work is conducted in complex and hazardous environments such as a process plant. A permit to work is an agreement signed by both the work crew and the area supervisor (or permit issuer) which describes various controls for the protection of the workers against uncontrolled releases of energy (e.g. electricity, or liquids or gas under pressure). The PTAR PTW System is reflective of industry leading practice. One of the key controls is isolation and lockout procedure, which requires workers to place a personal danger tag and isolation lock on equipment to prevent it from starting or moving unexpectedly.

#### **ASA Program**

Many occupational accidents can be attributed in part to unsafe behavior by the worker involved or by those around them. This may range from failure to follow procedure, "taking shortcuts", ignoring risk or simply working without due care. At the Martabe Gold Mine, unsafe behavior is addressed by the Active Safety Agreement (ASA) program. An ASA is a technique designed to encourage employees to routinely consider the potential consequences of their actions and the need to work safely, and is based on a structured conversation initiated by



managers with employees engaged in work. It is intended to promote "visible safety leadership" and participation in this program is mandatory for the site management team.

### **Incident Management**

Irrespective of the controls in place to minimise risk, accidents or "near misses" will always occur in a mining environment, caused by organisational, environmental and human factors. It is a requirement at the Martabe Gold Mine that significant incidents are reported within 24 hours, including:

- ► All work-related injuries or "near misses".
- Work-related illnesses.
- Significant safety hazards.
- Vehicle accidents.
- ► Fires within the area of operations.
- Accidental chemical releases or improper storage of hazardous chemicals.
- Unapproved land clearing.
- ► Any inoperable safety system, fire control system or pollution control equipment.

To minimise the risk of reoccurrence, it is important to determine the causes of incidents and implement appropriate corrective actions. Often the underlying causes of such events are complex and not easily determined. Therefore, a standard methodology is used at the Martabe Gold Mine for the investigation of incidents, supported by training and the use of standard forms. Incident management is supported by use of a server-based incident management system that facilitates initial reporting of incidents, email notification of the management team, implementation of incident investigations, and tracking of corrective actions.

In addition to minimising the risk of industrial accidents, PTAR works to eliminate the risk of injury resulting from occupational exposures to environmental hazards. The site implements an occupational health program focused on addressing the risk of health impacts resulting from exposure to excessive levels of noise, dust and metals. Monitoring of environmental hazards in the workplace is routinely conducted by industrial hygiene staff as the starting point in establishing engineering, procedural and personal protective equipment controls on workplace exposures.

### **RESULTS ACHIEVED 2018**

### **New Safety Controls**

Development of the PTAR HSE Safety Management System continued in 2018, with the following additional Codes of Practice of relevance to Occupational Health and Safety being released:

- ► Equipment Condition.
- ▶ Management of HSE Training Needs.
- Managing Work Restrictions for Pregnant and Nursing Employees.
- ► Monitoring and Managing Employee Health.
- Scaffolding.

A major new safety initiative developed in 2018 was the *Martabe Critical Control Program* (MCCP). This initiative focuses on hazards often associated with serious or fatal accidents in the mining industry (below) and the key workplace controls necessary for eliminating such accidents. MCCP is specifically designed to support the important role that front-line supervisors have in ensuring safe work, and each supervisor will be required to complete a number of Critical Control Checklists each month under this program, commencing in January 2019.





Symbols used in the Martabe Critical Control Program to indicate the presence of Major Safety Hazards in the workplace.

### **Lost Time Injuries**

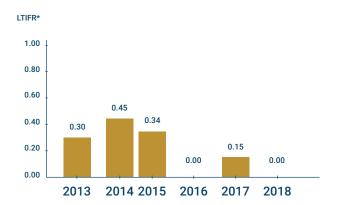
A key safety performance indicator in the mining industry is Lost-time Injury Frequency Rate (LTIFR), being the ratio of lost-time injuries per one million man-hours, calculated as a 12-month rolling average. In 2018 the site experienced zero Lost Time Injuries, and LTIFR was also zero.

By industry standards this was an outstanding result, and a continuation of the very low incidence of Lost Time Injuries experienced at the site since commencement of operations.

#### **Total Lost Time Injuries (LTI)**



#### **Lost Time Injury Frequency Rate (LTIFR)**



<sup>\*</sup> Per one million man-hours



# **Safety KPI Dashboard**

In order to motivate effort as well as recognise results, PTAR measures safety management performance by its Departments by means of a balanced set of safety key performance indicators (KPIs). These are presented in a monthly report called the Safety KPI Dashboard (see below). By the close of 2018, an aggregate safety KPI score of 95% was achieved for all Departments compared with a target of 90%. This reflected a very high level of compliance with controls aimed at minimising the risk of incidents, including:

- ► Implementation of incident investigations to determine the cause of incidents.
- Implementation of corrective actions to minimise the risk of reoccurrence of incidents.
- ► Full implementation of monthly Departmental HSE Committee meetings.
- Compliance with mandatory safety training requirements.
- Maintaining workplaces in good condition as measured in a workplace inspection program.
- ► Participation of site management in the Active Safety Agreement (ASA) program.



Extract from the PTAR Safety KPI Dashboard showing aggregate scores for the site as of December 2018.

# **LOCAL & NATIONAL EMPLOYMENT**

# GENERAL MANAGEMENT APPROACH

[103-1] [103-2] [103-3]

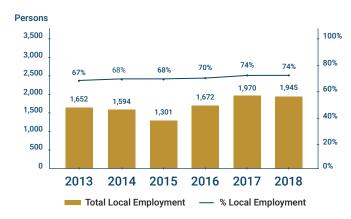
As a key measure to maintain the Company's social license to operate, and because it provides operational advantages, PTAR has committed to providing local communities with access to employment opportunities at the Martabe Gold Mine. Since the beginning of the project the Company has had the goal of at least 70% local workforce. Local employment is supported by employee access to a wide range of training courses and opportunities for government certification in a range of skills including equipment operation. The Company also aims to maximise employment of its workforce from within Indonesia.

# **RESULTS ACHIEVED 2018**

[102-8]

At the close of 2018, 74% of site workforce was local hire. A further 24% were employed from other locations within Indonesia and 2% were expatriate hire.

### **Local Employment**



#### PTAR Employees - Employment Status by Region and Gender (2018)

	Martabe	Jakarta	Male	Female	Total
Contract	51	4	43	12	55
Permanent	728	31	591	168	759
Total	779	35	634	180	814



# **GENDER DIVERSITY**

# GENERAL MANAGEMENT APPROACH

[103-1] [103-2] [103-3]

The Company has a Gender Diversity policy to enhance diversity and equality in all of its activities, and has been active in implementing a Gender Diversity Program since 2016. A more diverse workforce will make PTAR a stronger company and provide a competitive advantage. The Company recognizes that each employee brings their own unique capabilities, experiences and characteristics to their work, and that diverse perspectives enhance organisational strength, problem solving ability and innovation.

The key areas of gender diversity planning at PTAR include:

- Increasing female participation rates in all levels of the organisation. The target is to achieve 25% female workforce (employees and contractors), and 40% female management of PTAR, by the end of 2019.
- Eliminating barriers to diversity by reviewing work practices to ensure roles are gender neutral.
- Workforce engagement and alignment to develop a more inclusive culture.
- Policy and training to ensure the Company Human Resources framework supports gender diversity, for example removal of gender pay gap issues, and practical policies to support diversity.
- Leadership accountability and commitment for the success of the Gender Diversity Program.

PTAR has examined some of the structural barriers to diversity in the workplace and has set upon a progressive approach to removing these barriers. Some of the success relates to reviewing and updating work practices, the workplace environment, and infrastructure.

A number of initiatives in support of gender diversity have been embedded into the Company's HR Policy framework. Examples include a Harassment Policy, more attractive maternity and paternity leave benefits, improvements to address gender pay gap issues, and elimination of gender bias in evaluation for promotion.

Also, the Company is committed to the protection of pregnant employees and their pregnancies from workplace hazards through implementation of controls laid out in PTAR Code of Practice Managing Pregnancy Related Work Restrictions. These controls support women remaining safely at work until delivery is imminent.

The Company engages the workforce regularly and consistently during the year to raise awareness of gender diversity, including a week-long promotion and celebration of diversity leading into Kartini Day¹ each year. Contractors are also supporting the program with formal obligations and commitments to achieving participation rates.

#### **RESULTS ACHIEVED 2018**

In 2018 the Company's total workforce comprised 552 females (22%). Within the PTAR workforce, a total of 28% of superintendents and managers were female. The recruitment process was reworked to ensure a stronger focus on lifting the participation rates towards the targets in coming years.

In 2018, special initiatives in support of gender diversity included management workshops, career planning workshops, and free testing of employees for cervical and breast cancer.

<sup>1.</sup> Kartini Day is an Indonesian public holiday to celebrate the contribution of Raden Adjeng Kartini to the empowerment and education of women in Indonesia.

# **EMPLOYEE DEVELOPMENT**

# GENERAL MANAGEMENT APPROACH

[103-1] [103-2] [103-3]

Most of the people commencing employment at the Martabe Gold Mine have no prior experience of work in a mining or industrial environment. Training and development of employees is therefore critical to the ongoing success of the Martabe Gold Mine. The training delivered to PTAR employees and site contractors is of four main types:

- ► Health, safety and environment training.
- Personal development training.
- Technical skills training.
- ► Training for licenses to operate vehicles and equipment.

Most of this training is delivered on-site, and most of the course materials have been developed by PTAR so as to best meet employee needs. PTAR employee training and assessment records are managed through an on-line training management system. Safety training is critical to preventing accidents, and while the Company provides many types of safety training, there is a core group of safety competencies that is mandatory for all employees at the site.

## **RESULTS ACHIEVED 2018**

The Company's commitment to employee development was maintained in 2018. A total of 161 training courses were delivered by PTAR, with average hours of training for non-staff and general staff totalling 44 and 56 hours respectively. Given the importance of employee safety, a large proportion of the training delivered was safety training. Implementation of Mandatory Safety Training at the close of 2018 was 95%.



# **COMMUNITY DEVELOPMENT**

# GENERAL MANAGEMENT APPROACH

[103-1] [103-2] [103-3]

Community development is a process designed to create conditions of economic and social progress for a community as a whole, with its active participation and initiative. Community development programs are common in the mining industry, particularly where mining operations are located in rural or remote areas where local communities have limited access to public services. PTAR is committed to community development programs that ensure its most important stakeholders benefit directly from operation of the Martabe Gold Mine.

### Scope

The Company's support for community development is focused on 15 villages spanning the sub-districts of Batangtoru and Muara Batangtoru categorised as Directly Affected Villages (DAVs). These communities are characterised by a range of socioeconomic challenges including low education levels, high unemployment, limited access to health care, and dependence on agriculture as a source of wealth generation.

### **Guiding Principles**

PTAR has defined guiding principles for the delivery of community development reflective of the Company's Core Values. These form the basis for the design and implementation of community development and relations programs by the company, and can be used to manage stakeholder expectations:

#### **PTAR Community Development Guiding Principles**

Empowerment	PTAR community development programs must be aimed at promoting community empowerment and ensuring that there are processes in place to improve individual, group and community capacities to make purposeful choices and transform these choices into desired outcomes.
Good Governance	Community development programs must be properly managed to ensure accountability, transparency, responsiveness, effectiveness, efficiency, equitability and inclusiveness.
Sustainable Development	PTAR community development programs must deliver benefits to stakeholders after mine closure.
Stakeholder Values	An introduction to the history, culture and socioeconomic status of local communities around the Martabe Gold Mine.

## **Strategy and Framework**

The Company's community development strategy is documented in a Community Management Plan (CMP) that addresses community development planning over the period 2016 to 2020. This plan references a range of international guidelines and protocols, including:

- ► The United Nation's Sustainable Development Goals.
- ► The International Council on Mining and Metals (ICMM) Community Development Toolkit.
- ► The International Finance Corporation (IFC).
- Strategic Community Investment Handbook.
- ► ISO 26000 (a management framework for companies implementing social responsibility).

The Vision and Mission and Goals for the PTAR community development program are as follows:

# **Vision**

To improve livelihoods through sustainable development and respect for local cultures, wisdom and values.

# **Mission**

To further empower local communities by initiating programs that deliver sustainable and beneficial outcomes.

# Goals

PTAR community development programs must deliver benefits to stakeholders after mine closure.

Based on local socioeconomic factors, stakeholder consultation, special studies and industry benchmarking, the CMP targets five main program areas for delivering support to our local communities. These are: economic development, education, health, community relations and infrastructure support. The goals and contributing elements of the CMP are summarised as follows:

Program Area	Goals	Elements
Economic	Developing the local economy	Increased diversification and productivity of agriculture.
Development	by supporting income diversification.	Increased number and capacity of local suppliers and contractors.
		Development of vocational skills.
Education	Improving access to high- quality education.	Improved quality and accessibility of education infrastructure and facilities.
		Improved quality of education delivery and management.
		Increased student participation, achievement and competitiveness.
Health	Improving the quality of	Improved quality of community services.
	community health.	Promotion of healthy life behaviours.
		Improved prevention of infectious and non-communicable diseases.
Community Relations	Promoting trust and respect between stakeholders and	Increased awareness of PTAR operations
Relations	PTAR.	Appropriate management of stakeholder concerns and grievances regarding PTAR operations
		Respect, appreciation and preservation of local wisdom.
Infrastructure	Supporting infrastructure development that contributes to	Improved accessibility and availability of facilities supporting social and economic activities.
	quality of life.	Improvement of public and government facilities.
		Improved accessibility and quality of sanitation and hygiene infrastructure.



### **RESULTS ACHIEVED 2018**

The Company maintained a very active community development program in 2018, ensuring that all local stakeholders continued to benefit directly from operations at the mine. The Company provided \$1.25 million in support of programs targeting the key areas of health, education, local business development and public infrastructure. Community Development assistance was focused on the continuation of existing programs, summarised as follows:

#### Health

- Continuation of support for a free cataract surgery program for local people in partnership with A New Vision and the District Military Area Command. A total of 7,131 people have received surgery under this program since commencement in 2011.
- Visits to villages for the delivery of free health services such as infant health checks, pregnancy examinations, and treatment of common diseases.



- ► Provision of gymnastics classes for the elderly in local villages.
- Monthly visits by staff to village Health Care Clinics (Posyandu) to provide supplies and assist in delivery of services.
- Support for Tuberculosis Program community volunteers and a person recovering from tuberculosis.
- ► Support for malnutrition recovery treatment for an infant.
- ► Training for 35 government health staff in General Emergency Life Support.

- ► A Healthy School Competition involving kindergartens, elementary schools and high schools.
- Support for Global Handwashing Day including delivery of coaching in clean and healthy living at some schools and the provision of handwashing facilities.
- ► Commemoration of World AIDS Day in collaboration with the District Health Office of South Tapanuli.
- Continuation of a Healthy Teenagers Development Program.



#### **Education**

- Continued support for community "reading gardens" in 14 villages.
- ➤ Donation of 829 books to a library at Sopo Daganak (a large community amphitheatre in Batangtoru constructed with support from PTAR).
- ► Delivery of capacity-building training for local school headmasters.
- Funding of activities in support of World Environment Day, such as the planting of a thousand trees in one village.

- Provision of 50 scholarships for local children under the ongoing Martabe
   Prestasi scholarship program.
- Donation of computers to several schools.
- Continuation of support for a government school improvement program.
- Support for a Kartini Day celebration involving participation of approximately 600 girls and women.
- Delivery of capacity-building training for members of the Martabe Consultative Committee (LKMM).



# **Local Business Development**

- ► Procurement of local goods and services to the value of \$11.42 million.
- ► Financial management training for local suppliers and contractors.
- Support for the establishment of five new village cooperatives including training for their managers.
- Support for the production of various crops and fruits, and horticulture demonstration plots in various local villages.
- Support for paddy breeding and cultivation projects.
- Support for fish farming in various local villages.



### **Public Infrastructure**

- ► Construction and renovation of public bathrooms in various villages.
- ► Renovation of public health clinics (puskesmas) in various villages.
- Construction of clean water facilities in two villages.

- ► Repair of the Pulo Godang hanging bridge.
- ► Village road improvements.
- ► A rice processing facility.
- ► Mosque and church renovations.
- Construction of an office for local government use in Batangtoru.



### **Community Relations**

- Providing site tours to 1,077 people to explain operational aspects such as water management.
- ► Emergency assistance for flood affected communities.
- ► Distribution of food packages and other supplies to 1,092 elderly people at the end of Ramadhan.

In 2011, PTAR commenced support for a free cataract surgery program for local communities in collaboration with NGO A New Vision and the TNI District Military Area Command. This program, which is run annually, includes socialisation of cataract information, screening of applicants, cataract surgery and postoperative care. In 2018, 842 patients received cataract surgery under this program, bringing the total number of local people receiving operations over the seven years since program commencement to 6,200. The cataract operations have recorded a 100% success rate, with recipients ranging in age from eight months to 108 years. Restoring site not only brings significant benefit to the recipient, but helps alleviates poverty by allowing many recipients and caregivers to return to regular work.



# **SUSTAINABILITY MILESTONES**

2005 | 2008 | 2009 | 2010 2000 2001 2004

Environmental scoping study. terrestrial ecology studies.

First local social economic study

Feasibility design for the TSF.

First waste rock characterisation

health survey.

noise studies.

First rainfall and river flow studies.

testwork.

First community

First site water balance study.

> First stakeholder analysis study.

25 environmental studies and 13 social studies completed.

Martabe Gold Mine Amdal approved.

First PTAR Environmental Policy.

First PTAR Community Policy.

> Development Plan

Garden

waste rock

characterisation

study completed

surgery program

Free cataract

commences.

1,011 people

Sustainability

treated

First

Policy.

of "PTAR Goes to

School" program.

First Community

First Reading established.

Tona Nadenggan, monthly publication for stakeholders, commences

Commencement of healthcare program for mothers and children.

**ENVIRONMENTAL** 

**SOCIAL** 

**GENERAL** 





#### 2012 | 2013 | 2014 | 2015 | 2016 | 2017 2018

Detailed water balance model established.

USU commences the River Health Program.

Commissioning approval for WPP discharge received.

Independent Monitoring Team established by Decree of the Governor of North Sumatra.

First WPP discharge permit approved.

First tailing placement permit approved.

Creation of LKMM, a consultative aroup representing local villages.

First fish farm project commenced.

PTAR supports the inaugural Tapanuli Selatan Cultural Festival

First community water supply project

Commencement of community visits to site

People receiving free cataract surgery passes 3500.

Third-party gap assessment against the Equator Principles reports that the "Martabe Gold Project is in material compliance with EP requirements".

Approval of first Mine Closure

First reclamation quarantee approved.

First Blue **PROPER Rating** 

Commencement of biodiversity offset studies.

A total of 9.6 hectares rehabilitated.

Detailed waste rock characterisation and waste rock sealing studies.

Ambulance donated to local community.

Local employment passes 68%.

Community health study completed.

Stakeholder study completed.

Fiscal and economic impact study completed.

**GPMB CSR** Awards farming project.

Batangtoru **Grand Mosque** health clinic completed. completed.

completed.

Fire truck donation

Community Management Plan

Hanging bridge

completed.

Barani Amdal Addendum approved.

A record number of people from local communities are employed at the Martabe Gold Mine, totalling 1,852 persons, or 74% of all employees.

A major public infrastructure project, the Sopo Daganak public auditorium in Batangtoru, is completed with funding from PTAR

Environmental and social impact studies in support of the Tor Uluala prospect are completed.

As part of the Company's Gender Diversity Program, 93 percent of PTAR employees attend gender diversity training, and changes to the Company's recruitment process result in 39 percent of recruitments being female.

For the sixth consecutive vear, the Integrated Team established by Decision of the Governor of North Sumatra provides independent verification of WPP discharge compliance.

An undated mine closure plan is submitted to government for approval.

Zero lost time injuries across the entire site workforce, a safety performance on par with the best results seen in the mining industry.

Launch of an innovative program addressing major safety hazards in the workplace, called the Critical Controls Program.

Ongoing implementation of the Company's Gender Diversity Program supports a record 28% of PTAR superintendents and manager roles being filled by women.

Approval of an Amdal Addendum addressing a range of operational improvements and mining of the Tor Uluala deposit.



**LOOKING FORWARD** 

# **LOOKING FORWARD**

Sustainable development shall remain a key guiding principle for the management of the Martabe Gold Mine throughout operations and into mine closure. Regardless of the Company's achievements in this regard, there will always be opportunities for improvement, based on advances in scientific knowledge and industry practice, operational experience and the needs and expectations of stakeholders. In support of ongoing improvement in the implementation of sustainable development, the Company has identified a number of key goals for 2019:

- ► Further reduction in safety risk across the Martabe Gold Mine, through ongoing effort across all aspects of safety management, and specifically, through the implementation of a new and innovative program addressing the risk of major safety hazards, called the Critical Controls Program.
- ► Continued support for local community development in the areas of education, health, community relations, local economic development and infrastructure support, with this support enhanced through the release of a Community Development and Empowerment Master Plan addressing community development strategy and planning throughout operations and into mine closure

- ▶ Release of a Biodiversity Strategy and Implementation Plan which will lay out a systematic framework for the management of biodiversity impacts and risks associated with operation of the Martabe Gold Mine. The purpose is to ensure that the Company's biodiversity programs and operational controls are reflective of scientific knowledge and industry leading practices and fully integrated within life-ofmine planning.
- Continued focus on providing employment opportunities for local communities and the implementation of gender diversity initiatives to increase employment opportunities for women in all levels of the organisation.
- Ongoing optimization of the operational and financial performance of the Martabe Gold Mine and continuation of an active exploration program with the aim of supporting sustainable Company growth with benefits for all stakeholders.
- ► Maintaining protection of the environment and environmental compliance.

The Company looks forward to reporting on progress in implementing these and other outcomes in support of sustainable development in the 2019 Sustainability Report.

**APPENDICES** 

# APPENDIX ONE: THE PROCESS APPLIED FOR DEFINING REPORT CONTENT

#### INTRODUCTION

As with PTAR's previous sustainability reports, this report has been drafted in accordance with guidance provided by the Global Reporting Initiative (GRI). The Company's first three sustainability reports were drafted with reference to the GRI G-4 Guidelines. This report was drafted with reference to the GRI Standards. Preparing a report with reference to the GRI Standards helps ensure that the report provides a full and balanced account of the organisation's significant impacts on the economy, the environment, and society, and how these are being managed.

If an organisation wants to demonstrate that their sustainability report is in accordance with the GRI Standards, it must declare how this has been achieved. This is the purpose of this section. Beyond basic reporting requirements such as clarity and accuracy, the key content requirements under the GRI Standards are laid out in the following Reporting Principles for defining report content:

- Stakeholder Inclusiveness
- Sustainability Context
- Materiality
- Completeness

The following sections explain how these Standard Reporting Principles have been met in this report.

# STAKEHOLDER INCLUSIVENESS

[102-40]

Key stakeholder groups for the PTAR and the Martabe Gold Mine include:

Directly Affected Villages (DAVs). The AMDAL for the Martabe Gold Mine

- identified 15 local villages as likely to be affected in some way by construction and operation of the mine. These communities are called Directly Affected Villages (DAVs) and together comprise the scope of the current PTAR Community Management Plan (CMP).
- ▶ Employees. At the close of 2018, 2612 people were directly employed at the Martabe Gold Mine, of which 74% live in local communities. Apart from the Martabe Gold Mine, opportunities for permanent employment in the local area are limited and unemployment is relatively high.
- Regulators. From the project stage, government agencies at the regency, provincial and national levels have been significant stakeholders of the Martabe Gold Mine through involvement in a wide range of processes and activities. These include, for example, issue and administration of the Contract of Work, AMDAL assessments, issue and administration of environmental approvals and permits, administration of royalty and company taxes, site inspections, incident investigations, compliance audits, and assessment processes such as the PROPER program.
- ▶ Local Government. The Regency and Provincial governments are important stakeholders of the Martabe Gold Mine for a range of reasons. They are the elected representatives of local communities around the mine, they are recipients of fiscal benefits from the Company, they have accountabilities in regards to the issuing of approvals and permits and the monitoring of compliance with the same, and Company community development programs are developed in consultation with local government in support of community services such as health care and education.

Under the GRI Standards, sustainability reporting should take into account the reasonable expectations and interests of its stakeholders. As described under *Materiality* below, an initial list of material topics was compiled in 2014 based on information collected through many forms of stakeholder engagement conducted by the Company since commencement of the project. In the same year, this list was validated by consultants against Company records.

## SUSTAINABILITY CONTEXT

PTAR has only one operational site, and the scale of the Martabe Gold Mine is small compared to surrounding land uses. Environmental and social impacts resulting from operations at the site, both positive and negative, are not significant at a regional or national level. However, where data is available to the Company, sustainability performance has been compared with local or national data, or placed in context with mining industry practice generally. Examples include:

- All-in Sustaining Cost (AISC) of gold production.
- ► Fiscal contributions.
- ► Local employment.
- ► Community Management Plan (CMP).
- ► Lost-time Injury Frequency Rate.
- Minimum wage.
- ▶ PTAR HSE management system.
- PTAR Sustainability Policy.
- ► Acid mine drainage (AMD) management program.
- ► Design and operation of the Tailings Storage Facility (TSF).

#### **MATERIALITY**

[102-46] [102-49] [103-1]

The GRI Standards require that sustainability reporting addresses an organisation's material topics (formerly known as material aspects).

These are defined as the organisation's activities associated with significant economic, environmental and social impacts; or that substantively influence the assessments and decisions of its stakeholders. Reporting should enable stakeholders to assess the organisation's performance in managing these impacts.

A multi-staged approach has been applied in determining the material topics to be included in PTAR's sustainability reporting, as follows:

- ▶ In 2014, the Company began this process by listing the aspects of its operations already identified as being of particular interest or concern to its stakeholders through many forms of stakeholder engagement since project commencement. This took into account both actual and potential impacts, with particular emphasis on those impacts relevant to local communities around the Martabe Gold Mine. This preliminary list of material aspects, was independently validated by consultants against Company records of stakeholder engagement.
- ► To ensure materiality from a broader perspective, this list of material topics was then compared with topics commonly included in sustainability reporting for mining companies in general. The Sustainability Topics for Sectors: What Do Stakeholders Want to Know? guide produced by GRI Research and Development was utilised for this purpose.
- ► This work produced an extensive list of material topics and groupings. This list was then prioritised by ranking each topic in terms of importance from the perspective of both stakeholders and the Company. This ranking was then presented to Company executives for review and approval. From this process, the material topics for the Company were identified as:
  - Economic benefit.
  - Environmental Compliance.
  - Disposal of tailings.
  - Disposal of waste rock.
  - Site water discharge.
  - Site rehabilitation and mine closure.

- Biodiversity.
- Occupational health and safety.
- Local employment.
- Employee development.
- Community development.
- ▶ Following determination of these material topics, a company workshop was carried out to identify the Indicators to be reported for each topic. A total of 44 Indicators from GRI-G4 Specific Standard Disclosures were identified as relevant and able to be reported, and on this basis were included in the scope of the 2014 Sustainability report. As a separate exercise, General Standard Disclosures were selected to meet the Core option of GRI-G4.
- ▶ In 2015, this work was reviewed on the basis of additional information on local stakeholder concerns provided by a stakeholder mapping study and an economic impact assessment. These studies confirmed the selection of material topics applied to the 2014 Sustainability Report, and for reasons of continuity, these topics and their associated Indicators were carried over into subsequent reports.
- An additional material topic was included in the Company's 2016 sustainability report, namely greenhouse gas emissions, in response to interest expressed by a loan provider.
- ► Two additional material topics were included in the 2017 report:
  - Gender diversity was added, given the growing recognition of the importance of gender diversity in maximising the potential of organisations, the poor implementation of gender diversity in the mining industry generally, and a decision by the Company to commence a gender diversity program in 2016.

Management of hazardous industrial wastes ("B3 wastes") was added, given the ongoing attention given to this issue by government at district, provincial and national levels, and the challenge in ensuring ongoing compliance by both PTAR and site contractors.

### **COMPLETENESS**

The GRI Standards require sustainability reports to include coverage of material topics and their boundaries sufficient to reflect significant economic, environmental, and social impacts, and to enable stakeholders to assess the reporting organisation's performance in the reporting period. These requirements have been verified by the Company as follows:

### **Material Topics**

The completeness of the material topics presented in this report has been verified by comparison with several independent references:

- ► Topics commonly included in sustainability reporting for mining companies in general. The Sustainability Topics for Sectors: What Do Stakeholders Want to Know? guide produced by GRI Research and Development was utilised by consultants for this purpose in 2014.
- The significant environmental and social impacts identified in the Martabe Gold Mine AMDAL and subsequent amendments.
- ► Key environmental and social impacts identified for the site in *Environmental and Social Due Diligence Report, Martabe Gold Mine* (2017). This third-party study assessed the site against the Equator Principles and IFC Performance Standards for this purpose.

#### **Boundaries**

Under the GRI Standards, the topic Boundary is a description of where the impacts occur for a material topic, and the organisation's involvement with those impacts. Organisations might be involved with impacts either through their own activities or as a result of their business relationships with other entities. An organisation preparing a report in accordance with the GRI Standards is expected to report not only on impacts it causes, but also on impacts it contributes to, and impacts that are directly linked to its activities, products or services through a business relationship.

The boundaries for the material topics described in this report are generally limited to the local area around the Martabe Gold Mine, including 15 local villages assessed as "Directly Affected" and local waterways receiving mine water discharge. One key exception is logistics activities, in particular, the transport of dangerous goods to site from suppliers, and the transport of B3 waste from site to licensed waste processors. Although PTAR does not directly manage these activities, and legal liability for any incidents rests with the contractor involved, the Company does exert some control over the activities and associated risk management through contractual conditions. Other exceptions include fiscal benefits and employee benefits, both with significant positive impacts away from site.

# **SUMMARY OF MATERIAL TOPICS AND BOUNDARIES**

[102-47]

The following table summarises the preceding discussion on material topics and their boundaries for PTAR sustainability reporting.

#### **Material Topics and Boundaries Applied to this Report**

Material Topic	Main Class of Impact	Boundary <sup>1</sup>
Environmental compliance	Environmental	Local
Disposal of tailings	Environmental Local	
Disposal of waste rock	Environmental	Local
Management of hazardous industrial wastes	Environmental	Local and Supply Chain
Protection of water resources	Environmental	Local
Rehabilitation & mine closure	Environmental	Local
Protection of biodiversity	Environmental	Local
Health and safety	Social	Local
Local employment	Social	Local
Gender diversity	Social	Local
Employee development	Social	Local
Community development	Social	Local
Fiscal and economic benefits	Economic	National

# CORE AND COMPREHENSIVE REPORTING OPTIONS

With regards to reporting content, the GRI Standards allow organisations to choose between two in accordance options, Core or Comprehensive, based on which best meets their needs and those of their stakeholders. These options do not relate to the quality of the report or to the performance of the organisation, but simply reflect the degree to which the GRI Standards have been applied. In this report, as for previous reports, sufficient information has been reported to substantively meet the requirements of the Core option. The Core option contains the essential elements of a sustainability report and provides the background, against which an organisation communicates its economic, environmental, social, and governance performance and impacts.

Appendix 3 contains a matrix that maps the relationship between the contents of this report and the requirements for reporting against GRI Universal Standards and Topic Specific Standards.

# **REPORTING PERIOD**

[102-50]

Information on the material topics for the 2018 reporting period is presented in this report at *Our Approach to Managing Sustainability and Results Achieved 2018.* Appendix 2 presents a complete set of 2018 data in support of the selected specific disclosures for each material topic, together with data from earlier years for comparison.

# APPENDIX TWO: GRI STANDARDS PERFORMANCE INDICATOR DATA TABLES

Performance Indicator	Unit	2016	2017	2018
CATEGORY: ECONOMIC				
ASPECT: ECONOMIC PERFORMANCE				
201-1: Direct Economic Value Generated and Distributed	ı			
Total Economic Value Generated	USD '000	426,440	484,438	574,197
Total Economic Value Distributed	USD '000	335,108	383,038	426,091
Total Operating Costs	USD '000	254,934	274,860	269,366
Wages and Benefits Paid	USD '000	26,487	28,563	29,018
Community Investments	USD '000	1,233	1,771	1,308
Expenses to Government	USD '000	52,454	77,844	126,399
Royalties	USD '000	2,390	2,698	21,300
Taxes	USD '000	48,496	73,745	103,419
Others	USD '000	1,568	1,401	1,680
Total Economic Value Retained	USD '000	91,332	101,400	148,106

#### NOTES:

- Total Economic Value Retained = Economic Value Generated Economic Value Distributed.
- Amounts include revenues and costs determined on an accruals basis, consistent with the audited financial statements
- Operating costs related to expense recognised in the financial statements. They exclude employee wages and benefits, payments to governments and community investments.
- Dividends totalling of USD 7,709,200 were paid to PTAR's non-controlling shareholders in 2018.

#### 201-2: Financial Implications, Risks & Opportunities Due to Climate Change

No significant impacts due to climate change have been identified for PTAR to-date.

#### **ASPECT: MARKET PRESENCE**

202-1 : Entry-Level Wage by Gender Compared to Local Minimum Wage				
PTAR Male Minimum Wage vs. Local Minimum Wage. Ratio 1.0 1.0 1.0				
PTAR Female Minimum Wage vs. Local Minimum Wage Ratio 1.0 1.0 1.0				

#### NOTES:

- Data applies only for PTAR National employees.

202-2: Proportion of Senior Management Hired From	the Local Community			
Percentage Senior Management Local Hire	%	3	7	7

- Senior Management is defined as Managers and above.
- Local is defined as residing in South and Central Tapanuli.

Performance Indicator	Unit	2016	2017	2018				
ASPECT: INDIRECT ECONOMIC IMPACTS								
203-1: Infrastructure Investments and Services Supported								
Total Community Investment	Total Community Investment USD '000 1,233 1,770 1,308							
Community Relations Investment	USD '000	75	47	57				
Community Development Investment	USD '000	1,158	1,723	1,251				
Health	USD '000	269	281	261				
Education	USD '000	135	253	244				
Local Business and Economic Development	USD '000	209	199	133				
Social and Cultural Identity	USD '000	9	16	21				
Community Support	USD '000	133	158	110				
Public Infrastructure:	USD '000	403	816	482				
Total Projects	Number	47	48	34				
Total Duration of Projects	Days	2,044	2,515	1,824				

- 2016: Converted from IDR, with USD 1 = IDR 13,454.
- 2017: Converted from IDR, with USD 1 = IDR 13,569.
- 2018: Converted from IDR, with USD 1 = IDR 14,481.
- Investments have been provided in the form of cash and in-kind. Pro bono contributions have not been included in this table.

#### **ASPECT: PROCUREMENT PRACTICES**

204-1 : Proportion of Spending on Local Suppliers				
Local	%	7	10	6
National	%	76	74	83
International	%	17	16	11

#### NOTES:

- "Local suppliers" are those suppliers that are registered in South or Central Tapanuli.
- "National suppliers" are those suppliers registered elsewhere in Indonesia.

#### **ASPECT: ANTI CORRUPTION**

[103-1] [103-2] [103-3]

205-2 : Communication and Training Anti-c	orruption Policies and Procedu	res		
Sign-off PTAR Code of Ethics and Business	Conduct			
All Employees	number	734	780	796
Senior Management	number	18	25	26
Staff	number	670	710	722
% of Workforce	%	99	99	99
Sign-off PTAR Suppliers Code of Condu	ct			
Service Providers	%	100	100	100

- Anti-corruption policies and procedures are described in the company's Code of Ethics and Business Conduct.
- Clauses related to anti-corruption are included within the General Terms and Conditions for Suppliers.
- Anti-Corruption is covered during the HR Induction presentation. Employees are required to sign the Code of Conduct as part of the HR Induction.

erformance Indicator	Unit	2016	2017	2018	
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#### **CATEGORY: ENVIRONMENT**

#### **ASPECT: MATERIALS**

01-1: Materials Used				
Raw Materials				
Ore	tonne	4,840,116	5,353,388	5,572,308
Associated Process Materials				
Process Reagents	tonne	18,619	19,754	19,310
Grinding Media	tonne	9,055	8,393	9,312
Oils and Lubricants	tonne	43	38	43
Other Chemicals	tonne	38	47	59

#### NOTES:

- All materials listed above are considered non-renewable (most residual material being lost the TSF).

301-2: Recycled Materials Used				
Percentage of Input Materials that are Recycled	%	0.02	0.01	0.01

#### NOTES:

- Worn mill liners are returned to the supplier for recycling.

#### **ASPECT: WATER**

303-1: Water Withdrawal by Source				
Total Volume of Water Withdrawn Martabe Gold Mine	m³/y	16,101,339	16,126,737	16,120,392
Surface water	m³/y	0	0	0
Wetland	m³/y	0	0	0
River	m³/y	0	0	0
Lake	m³/y	0	0	0
Ocean	m³/y	0	0	0
Groundwater	m³/y	101,339	126,737	120,392
Rainwater	m³/y	16,000,000	16,000,000	16,000,000
Waste Water	m³/y	0	0	0
Municipal Water Supply	m³/y	0	0	0
Public/Private Water Utilities	m³/y	0	0	0

#### NOTES:

- Rainwater input is as predicted for an average year based on site water balance modelling. It cannot be directly measured
- Groundwater withdrawal is metered.

303-2: Water Sources Significantly Affected by Withdrawal of Water				
Reduction of Flow Aek Pahu Stream Due to Catchment	m³/h	1,826	1,826	1,826
Interception by the TSF				

- This is the average reduction of flow to the Aek Pahu stream as determined by site water balance modelling, and represents water intercepted by the TSF and sediment ponds. This water is released to the Batangtoru River after treatment at the Water Polishing Plant.
- The water source has no Protected Area Status.

Performance Indicator	Unit	2016	2017	2018
303-3: Water Recycled and Reused				
Volume Water Recycled	m³/h	Up to 451	Up to 451	Up to 451
Percentage of Water Recycled	%	Up to 60	Up to 60	Up to 60
Volume Water Reused	m³/h	0	0	0
Percentage Water Reused	%	0	0	0

- These are the percentages and total volume of water recycled by transfer from the TSF to the process plant for an average year as determined by site water balance modelling.

#### **ASPECT: BIODIVERSITY**

304-1: Sites Owned Adjacent To Protected Areas or Areas of High Biodiversity Value				
Number of Sites Owned, Leased, Managed in, or Adjacent to Protected Areas and Areas of High Biodiversity Value Outside Protected Areas	number	1	1	1
Separation at Closest Point	km	4	4	4
Size of Operational Site	km²	3.90	4.60	4.79

#### NOTES:

- Site has nil subsurface and underground land.
- Mine footprint approximately 4 km at closest point to protected forest.
- The majority of the landscape within the mining footprint before construction was forest, degraded forest, plantation, cleared land and tracks. Due to the close proximity of villages, townships and extensive plantation areas the area had experienced significant previous disturbance including the presence of numerous walking tracks used by workers to access rubber plantations.

304-3: Habitats Protected or Restored				
Total Area of Habitat Protected	ha	0	0	0
Total Area of Habitat Restored	ha	0	0	0

#### NOTES:

- Areas that have been rehabilitated on-site are not yet fully restored.

#### **ASPECT: EMISSIONS**

305-1: Direct GHG Emissions				
Total Direct GHG Emissions	tonne CO <sub>2</sub> eq	169,940	143,064	66,008
Fuel Consumption	tonne CO <sub>2</sub> eq	40,020	34,899	40,297
Electricity Consumption (Own Power Plant)	tonne CO <sub>2</sub> eq	99,030	87,747	1,935
Refrigeration Use	tonne CO <sub>2</sub> eq	3,997	4,920	5,609
Chemicals Use	tonne CO <sub>2</sub> eq	3,876	4,068	4,048
Blasting	tonne CO <sub>2</sub> eq	434	367	470
Land Clearing / Revegetation	tonne CO <sub>2</sub> eq	22,583	11,064	13,649

- Based on data from the Martabe project.
- The IFC Carbon Emissions Estimation Tool 2014 was used to calculate the GHG emissions.
- For fuel and electricity consumption the following gasses were included:  $CO_2$ ,  $CH_{4'}$ ,  $N_2O$ .

Performance Indicator	Unit	2016	2017	2018
305-2: Energy Indirect GHG emissions				
Total Energy Indirect GHG Emissions	tonne CO <sub>2</sub> eq	2,761	2,988	125,228
Electricity Purchased From PLN	tonne CO <sub>2</sub> eq	147	164	122,667
Domestic and International Flights	tonne CO <sub>2</sub> eq	2,614	2,824	2,561

- The IFC Carbon Emissions Estimation Tool 2014 was used to calculate the GHG emissions, meeting the "location based" component of GRI Standards GHG reporting.

305-3: Other indirect GHG Emissions				
Other Relevant Indirect GHG Emissions Identified	number	0	0	0

#### NOTES:

- NA

305-4: GHG emissions intensity				
Overall GHG Emissions intensity	tonne CO₂ eq per 1000 oz Au	555	411	466
Total GHG Emissions	tonne CO <sub>2</sub> eq	172,701	146,052	191,236
Total Direct GHG Emissions	tonne CO <sub>2</sub> eq	169,940	143,064	66,008
Total Energy Indirect GHG Emissions	oz Au tonne CO <sub>2</sub> eq	2,761	2,988	125,228
Total Gold Produced	oz	311,000	355,000	410,000

#### NOTES:

- Calculated based only on gold production (excluding silver).

#### **ASPECT: EFFLUENTS & WASTE**

306-1: Water Discharge by Quality and Destination				
Total Planned Water Discharges	m³/ annum	16,283,517	14,666,974	17,405,748
Water Polishing Plant (WPP) to the Batangtoru River	m³/ annum	16,283,517	14,666,974	17,339,551
Site Sewage Treatment Plant to Aek Pahu Stream	m³/ annum	N/A	N/A	66,197

- Discharge from the Water Polishing Plant is fully permitted under Indonesian law.
- Discharge from the site Sewerage Treatment Plant is fully permitted under Indonesian law.
- All water is discharged into natural waterways rather than being directly provided to other parties for use.
- Volumes shown are metered volumes.
- Release of general site runoff water is not included in the above table.

Performance Indicator	Unit	2016	2017	2018
306-2: Waste by Type and Disposal Method	· ·		·	
Total Hazardous Waste	tonne	473	522	529
Reuse	tonne	0	0	0
Recycling	tonne	0	0	0
Composting	tonne	0	0	0
Recovery	tonne	264	279	257
Incineration	tonne	0	0	0
Deep Well Injection	tonne	0	0	0
Landfill (Offsite)	tonne	209	244	272
On-site Storage	tonne	0	0	0
Total Non-Hazardous Waste	tonne	1,619	1,532	1,613
Reuse	tonne	0	0	0
Recycling	tonne	0	0	0
Composting	tonne	13	11	0
Recovery	tonne	0	0	0
Incineration	tonne	70	42	0
Deep Well Injection	tonne	0	0	0
Landfill	tonne	1,536	1,479	1,613
On-site Storage	tonne	0	0	0

- On-site tailings disposal data is excluded, which is documented in MM3.
- A monthly tally of waste delivered from site is maintained by the Environmental staff. Off-site disposal is regulated by contract. All hazardous waste is disposed by licensed waste disposal companies subject to regulation by government.

Disclosure 30	6-3: Significant Spills				
Total Number	of Spills	number	9	11	6
Total Volume	of Spills	litre	680	329	1428
Oil:	Soil	litre	225	78	118
	Water	litre	0	0	0
Fuel:	Soil	litre	244	230	305
	Water	litre	0	0	0
Waste:	Soil	litre	0	0	0
	Water	litre	0	0	0
Chemical:	Soil	litre	11	20	5
	Water	litre	0	1	0
Other:	Soil	litre	0	0	0
	Water	litre	200	0	1000

- All spills must be recorded in in the Company's incident management system.
- No significant impacts resulted from spills that occurred, and all spills were fully cleaned-up. The 1000 L of spill recorded under "Other" in 2018 was non-toxic drilling mud.

Performance Indicator	Unit	2016	2017	2018
Disclosure 306-4: Transport of Hazardous Waste				
Weight of Transported, Imported, Exported, or Treated W	aste Deemed Ha	azardous		
Transported	tonne	473	522	529
Imported	tonne	0	0	0
Exported	tonne	0	0	0
Treated	tonne	0	0	0
Shipped Internationally	%	0	0	0

- All waste identified under regulation as hazardous or toxic (B3) waste is transported off-site to a licensed waste processor.

306-5: Water Bodies Affected by Water Discharg	ges and/or Runoff			
Identified Water Bodies and Related Habitats that	at are Significantly Affected	by Water Dischar	ges and/or Rund	off
Water Body and Related Habitats	Number	0	0	0
Size	NA	NA	NA	NA
Protected Status	NA	NA	NA	NA
Biodiversity Value	NA	NA	NA	NA

#### NOTES:

- Impacts on receiving waters are assessed by means of an independent monitoring program conducted by the University of North Sumatera.

# **CATEGORY: SOCIAL-LABOUR PRACTICES AND DECENT WORK**

#### **ASPECT: EMPLOYMENT**

Disclosure 401-1: New employee hires and employee turnover					
Total Number and Rates of New Employe	ee Hires and Employee Turnover by A	Age Group and Ge	ender		
Total New Hires	number	97	90	52	
Male	number	83	55	29	
Female	number	14	35	23	
Age <30	number	27	43	21	
Age 30-50	number	53	42	30	
Age > 50	number	17	5	1	
Local	number	35	33	21	
Non-Local	number	62	57	31	
Hiring Rate	%	13	11	6	
Male	%	11	7	4	
Female	%	2	4	3	
Age <30	%	4	5	3	
Age 30-50	%	7	5	4	
Age > 50	%	2	1	0.1	
Local	%	5	4	3	
Non-Local	%	8	7	4	

Performance Indicator	Unit	2016	2017	2018
Total Turnover	number	71	48	48
Male	number	62	42	38
Female	number	9	6	10
Age <30	number	15	11	8
Age 30-50	number	40	30	31
Age > 50	number	16	7	9
Local	number	24	10	8
Non-Local	number	47	38	40
Turnover Rate	%	9	6	6
Male	%	8	5	5
Female	%	1	1	1
Age <30	%	2	1	1
Age 30-50	%	5	4	4
Age > 50	%	2	1	1
Local	%	3	1	1
Non-Local	%	6	5	5

- Rates are calculated as: total number of employees in the given category at the end of the year divided by total employees at the end of the year.

401-2: Benefits Provided to Full-Time Employee	s Not Provided to Tempora	y or Part-Time En	nployees	
NA	N/A	N/A	N/A	N/A

#### NOTES:

- PTAR does not have part-time employees.
- Benefits provided to full-time employees include: life insurance; health care; disability & invalidity coverage; parental leave (maternity leave); retirement provision.

401-3: Parental Leave				
Return to Work and Retention Rates After Parental Leave				
Entitled to Parental Leave	number	134	163	181
Parental Leave Taken	number	12	22	19
Return to Work After Parental Leave	number	12	22	19
Still Employed Twelve Months After Return to Work	number	12	22	19
Retention Rates After Parental Leave	%	100	100	100

#### NOTES:

- NA

Performance Indicator	Unit	2016	2017	2018		
ASPECT: OCCUPATIONAL HEALTH & SAFETY						
403-1: Workforce Represented in Formal Joint Management-Worker Health and Safety Committees						
Number of Workforce Represented	Number	570	633	641		
Percentage of Total Workforce Represented	%	75	80	79		

- Numbers correspond to PTAR employees from departments that have H&S Committees.
- Percentage is the ratio between number of employees represented and the total PTAR employees.

403-2 : Injuries and Occupational Diseases, Lost Day	ys, Absenteeism, Work-r	elated Fatalities		
For Employees (Total employees + supervised works				
Type of Injuries	•			
First aid Injuries	number	23	16	15
Male	number	18	15	11
Female	number	5	1	4
Total Lost Time Injuries (LTI)	number	0	0	0
Male	number	0	0	0
Female	number	0	0	0
Total Medical Treatment Injuries (MTI)	number	6	8	5
Male	number	6	8	4
Female	number	0	0	1
Total Recordable Injuries (TRI)	number	6	8	5
Male	number	6	8	4
Female	number	0	0	1
Injury rate (IR)	Per Million	2.84	3.63	2.21
	Man-Hours			
Male	Per Million	3.45	4.57	2.27
	Man-Hours			
Female	Per Million	0.00	0.00	2.00
Occurational Disease Pate (ODD)	Man-Hours %			
Occupational Disease Rate (ODR)		0	0	0
Male	%	0	0	0
Female (100)	%	0	0	0
Lost Day Rate (LDR)	%	0	0	0
Male	%	0	0	0
Female (17)	%	0	0	0
Absentee rate (AR)	%	0.54	0.58	0.44
Male	%	0.54	0.60	0.37
Female	%	0.51	0.55	0.68
Work-Related Fatalities	number	0	0	0
Male	number	0	0	0
Female	number	0	0	0

Performance Indicator	Unit	2016	2017	2018
All Workers Excluding PTAR Employees (Independent	t Contractors)	·		
First aid Injuries	Number	17	20	13
Male	Number	14	18	12
Female	Number	3	2	1
Total Lost Time Injuries (LTI)	Number	0	1	0
Male	Number	0	1	0
Female	Number	0	0	0
Total Medical Treatment Injuries (MTI)	Number	3	15	13
Male	Number	3	15	13
Female	Number	0	0	0
Total Recordable Injuries (TRI)	Number	3	16	13
Male	Number	3	16	13
Female	Number	0	0	0
Injury rate (IR)	Per Million	0.75	3.41	2.83
	Man-Hours			
Male	Per Million	0.89	4.15	3.55
	Man-Hours			
Female	Per Million	0	0	0
	Man-Hours			
Lost day rate (LDR)	Per Million	0	0.21	0
	Man-Hours			
Male	Per Million	0	0.26	0
	Man-Hours			
Female	Per Million	0	0	0
	Man-Hours			
Work-related Fatalities	number	0	0	0
Male	number	0	0	0
Female	number	0	0	0

- Female and male man-hours used for rate calculations are estimated based on total man-hours and employee gender ratio.

403-3 : Workers with High Incidence or High Risk of Disea	ases Related to The	ir Occupation		
Workers With High Incidence of Occupational Diseases	number	0	0	0

# NOTES:

- NA

403-4 : Health and Safety Topics Covered in Formal Agreements with Trade Unions					
Coverage of Health and Safety Topics in Formal	%	100	100	100	
Agreements with Trade Unions					

- Data applies for PTAR employees.
- A Collective Labour Agreement is in place between PTAR and the Trade Union within the Organisation, which
  includes relevant health and safety articles.

Performance Indicator	Unit	2016	2017	2018
ASPECT: TRAINING & EDUCATION				
404-1: Average Hours of Training Per Year Per Employee	)			
Average Hours of Training per Year per Employee				
Average Training Time by Gender				
Male	hours	45	47	51
Female	hours	33	37	48
Average Training Time by Employee Category				
Managers & Above	hours	31	33	47
General Staff	hours	49	42	56
Non-Staff	hours	40	50	44

- Only includes training delivered by the PTAR Training & Development Department. Does not include Department-based training.

404-2: Programs for upgrading employee skills and transition assistance programs				
Types of Training Delivered				
HSE	number	35	49	50
Mobile Equipment	number	21	16	23
Role Specific	number	23	32	87
Developmental	number	7	6	13
Language	number	6	4	2

#### NOTES:

- Transition assistance programs provided to assist employees in managing career endings are not included in the above table.

04-3: Percentage of Employees Receiving Regular Performance and Career Development Reviews				
Gender				
Male	%	100	100	100
Female	%	100	100	100
Employee Category				
Managers & Above	%	100	100	100
General Staff	%	100	100	100
Non-Staff	%	100	100	100

#### NOTES:

- NA.

Performance Indicator	Unit	2016	2017	2018
ASPECT: DIVERSITY & EQUAL OPPORTUNITY	Υ			
Disclosure 405-1: Diversity of governance bodies and e	employees			
Percentage of Individuals within Governance Bodies, by	y Gender and Ag	e Group		
Total Percentage			-	
Male	%	89	89	88
Female	%	11	11	12
Age <30	%	0	0	0
Age 30-50	%	50	33	29
Age >50	%	50	67	71
Percentage of Employees per Employee Category, by G	ender and Age G	roup		
Total Percentage				
Male	%	82	79	78
Female	%	18	21	22
Age <30	%	22	23	20
Age 30-50	%	71	71	71
Age >50	%	7	6	9

#### **ASPECT: EQUAL REMUNERATION FOR WOMEN & MEN**

405-2: Ratio of Basic Salary and Remuneration of Women to Men				
All Employees	%	90	91	96
All Staff (General Staff, Managers & Above)	%	85	86	88
Non-Staff	%	97	95	95

#### NOTES:

### **CATEGORY: SOCIAL - SOCIETY**

#### **ASPECT: LOCAL COMMUNITIES**

413-1: Operations with Local Community Engagement, Impact Assessments, and Development Programs				
Total Number of Operations	number	1	1	1
Operations with Implemented Community Programs	number	1	1	1
Percentage of Operations with Implemented Local	%	100	100	100
Community Engagement, Impact Assessments and/or				
Development Programs.				

#### NOTES:

- This indicator is explained in the narrative of the report.

#### 413-2: Operations with Significant Actual and Potential Negative Impacts on Local Communities

This indicator is explained in the narrative of the report.

<sup>-</sup> Percentage of employees per employee category, by gender and age group applies for all PTAR employees.

<sup>-</sup> Data applies for PTAR National employees. Gender pay gap reviews have been conducted and recommendations implemented. Differences in remuneration generally exist as a result of differences in skills, experience and length of service

Performance Indicator Unit 2016 2017 2018	
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## **CATEGORY: MINING & METALS SECTOR - ENVIRONMENTAL**

#### **ASPECT: BIODIVERSITY**

MM1: Land Disturbed and Rehabilitated				
Total Disturbed Land at the Beginning of the Year	ha	364.0	377.0	449.7
Area Disturbed	ha	13.0	73.3	19.6
Area Rehabilitated	ha	0.0	0.6	4.6
Total Disturbed Land at the End of the Year	ha	377.0	449.7	464.7

NOTE: N/A.

## MM2: Sites Requiring Biodiversity Management Plans

PTAR has one site and that site has a Biodiversity Management Plan.

NOTES:

- N/A.

#### **ASPECT: EFFLUENTS & WASTE**

MM3: Total Amounts of Overburden, Rock, Tailings and Sludges				
Overburden	tonne	8,068,686	5,332,293	6,059,445
Tailings	tonne	4,840,031	5,254,981	5,572,205
Sludges	tonne	0	0	0

#### NOTES

## **CATEGORY: MINING & METALS SECTOR - SOCIETY**

#### **ASPECT: LOCAL COMMUNITIES**

MM6: Significant Disputes Relating to Land Use, Customary Rights and Indigenous People					
Significant Disputes Related to Land use, Customary	number	1	2	0	
Rights and Indigenous Peoples.					

#### NOTES:

N/A.

# MM7: Extent to Which Grievance Mechanisms Were Used to Resolve Disputes Relating to Land Use, Customary Rights of Local Communities and Indigenous People

Significant Disputes Related to Land Use, Customary	number	1	2	0
Rights and Indigenous Peoples.				

#### NOTES:

- N/A.

#### **ASPECT: CLOSURE PLANNING**

MM10: Operations with Closure Plans				
Mine Closure Guarantees deposited.	USD '000	4,386	7,342	10,251
Cumulative Deposit.	USD '000	5,864	13,206	23,457

## NOTES:

- PTAR has one operation, which has a Closure Plan in place.
- The total Mine Closure Guarantee is USD 23,456,541.

<sup>-</sup> Amounts of tailings are calculated as the weight of dry tonnes milled less the weight of precious metals extracted.

# **APPENDIX THREE: GRI STANDARDS REFERENCE INDEX**

[102-55]

## **General Standard Disclosures**

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102-11	Precautionary Principle or approach	24
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2 Strategy		
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3 Ethics and	Integrity	
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# **General Standard Disclosures (continued)**

Disclosure	Remarks	Page number(s) or explanation		
6 Reporting P	6 Reporting Practice			
102-45	Entities included in the consolidated financial statements	PTAR does not have any subsidiaries		
102-46	Defining report content and topic boundaries	89-91		
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102-56	External assurance	110-112		

# **Topic-Specific Disclosures: Economic**

Disclosure	Remarks	Page number(s) or explanation
Economic Pe	rformance	
103-1	Explanation of the material topic and its boundary	40, 89 and 90
103-2	The management approach and its component	21, 24, 26 and 41
103-3	Evaluation of the management approach	21, 24, 26 and 41
201-1	Direct economic value generated and distributed	93
201-2	Financial implications and other risks and opportunities due to climate change	93
201-3	Defined benefit plan obligations and other retirement plans	41
Market Prese	ence	
103-1	Explanation of the material topic and its boundary	40, 89 and 90
103-2	The management approach and its component	21, 24, 26 and 41
103-3	Evaluation of the management approach	21, 24, 26 and 41
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	93
202-2	Proportion of senior management hired from the local community	93

# **Topic-Specific Disclosures: Economic (continued)**

Disclosure	Remarks	Page number(s) or explanation
Indirect Econ	omic Impacts	
103-1	Explanation of the material topic and its boundary	40, 89 and 90
103-2	The management approach and its component	21, 24, 26 and 41
103-3	Evaluation of the management approach	21, 24, 26 and 41
203-1	Infrastructure investments and services supported	94
Procurement	Practices	
103-1	Explanation of the material topic and its boundary	19
103-2	The management approach and its component	19 and 28
103-3	Evaluation of the management approach	20
204-1	Proportion of spending on local suppliers	94
Anti-Corrupti	ion	
103-1	Explanation of the material topic and its boundary	94
103-2	The management approach and its component	94
103-3	Evaluation of the management approach	94
205-2	Communication and training about anti-corruption policies and procedures	94

# **Topic-Specific Disclosures: Environmental**

Disclosure	Remarks	Page number(s) or explanation
Materials		
103-1	Explanation of the material topic and its boundary	44, 89 and 90
103-2	The management approach and its component	21, 24, 26 and 44
103-3	Evaluation of the management approach	21, 24, 26 and 44
301-1	Materials used by weight or volume	95
301-2	Recycled input materials used	95
Water		
103-1	Explanation of the material topic and its boundary	54, 89 and 90
103-2	The management approach and its component	21, 24, 26 and 54-55
103-3	Evaluation of the management approach	21, 24, 26 and 55
303-1	Water withdrawal by source	95
303-2	Water sources significantly affected by withdrawal of water	95
303-3	Water recycled and reused	96
Biodiversity		
103-1	Explanation of the material topic and its boundary	63, 89 and 90
103-2	The management approach and its component	21, 24, 26 and 63-64
103-3	Evaluation of the management approach	21, 24, 26 and 63-64
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	96
304-3	Habitats protected or restored	96

# **Topic-Specific Disclosures: Environmental (continued)**

Disclosure	Remarks	Page number(s) or explanation
Emissions		
103-1	Explanation of the material topic and its boundary	40, 89 and 90
103-2	The management approach and its component	21, 24, 26 and 41
103-3	Evaluation of the management approach	21, 24, 26 and 41
305-1	Direct (Scope 1) GHG emissions	96
305-2	Energy indirect (Scope 2) GHG emissions	97
305-3	Other indirect (Scope 3) GHG emissions	97
305-4	GHG emissions intensity	97
Effluents and	l Waste	
103-1	Explanation of the material topic and its boundary	46, 50-51,89 and 90
103-2	The management approach and its component	21, 24, 26 and 46-48
103-3	Evaluation of the management approach	21, 24, 26 and 46-48
306-1	Water discharge by quality and destination	97
306-2	Waste by type and disposal method	98 and 51-52
306-3	Significant spills	98
306-4	Transport of hazardous waste	99
306-5	Water bodies affected by water discharges and/or runoff	99
Environment	al Compliance	
103-1	Explanation of the material topic and its boundary	44 and 89 - 90
103-2	The management approach and its component	21, 24, 26, 44 and 45
103-3	Evaluation of the management approach	21, 24, 26, 44 and 45
307-1	Non-compliance with environmental laws and regulations	45
Rehabilitatio	n	
103-1	Explanation of the material topic and its boundary	60-61 and 89-90
103-2	The management approach and its component	60 and 61
103-3	Evaluation of the management approach	60 and 61
		· · · · · · · · · · · · · · · · · · ·

# **Topic-Specific Disclosures: Social**

Disclosure	Remarks	Page number(s) or explanation
Employment		
103-1	Explanation of the material topic and its boundary	71, 89 and 90
103-2	The management approach and its component	21, 24, 26 and 71-73
103-3	Evaluation of the management approach	21, 24, 26 and 71-73
401-1	New employee hires and employee turnover	99-100
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	100
401-3	Parental leave	100

# **Topic-Specific Disclosures: Social (continued)**

Disclosure	Remarks	Page number(s) or explanation
Occupationa	l Health and Safety	
103-1	Explanation of the material topic and its boundary	40, 65, 89 and 90
103-2	The management approach and its component	21, 24, 26, 41, 65 and 66
103-3	Evaluation of the management approach	65-66
403-1	Workers representation in formal joint management–worker health and safety committees	101
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	101
403-3	Workers with high incidence or high risk of diseases related to their occupation	102
403-4	Health and safety topics covered in formal agreements with trade unions	102
Training and	Education	
103-1	Explanation of the material topic and its boundary	21, 24, 26 and 73
103-2	The management approach and its component	21, 24, 26 and 73
103-3	Evaluation of the management approach	19, 22, 24 and 73
404-1	Average hours of training per year per employee	103
404-2	Programs for upgrading employee skills and transition assistance programs	103
404-3	Percentage of employees receiving regular performance and career development reviews	103
Diversity and	Equal Opportunity	
103-1	Explanation of the material topic and its boundary	70
103-2	The management approach and its component	72
103-3	Evaluation of the management approach	72
405-1	Diversity of governance bodies and employees	104
405-2	Ratio of basic salary and remuneration of women to men	104
Local Comm	unities	
103-1	Explanation of the material topic and its boundary	74, 89 and 90
103-2	The management approach and its component	21, 24, 26 and 74-75
103-3	Evaluation of the management approach	21, 24, 26 and 74-75
413-1	Operations with local community engagement, impact assessments, and development programs	104
413-2	Operations with significant actual and potential negative impacts on local communities	104

# **GRI Sector Specific Indicator Under G4 Aspect**

Disclosure	Remarks	Page number(s) or explanation
Biodiversity		
MM1	Amount of land disturbed or rehabilitated	105
MM2	Number and percentage of total sites identified as requiring bio- diversity management plans (BMPs) according to stated criteria and the number (percentage) of those sites with plans in place	105
Effluents & W	/aste	
MM3	Total amounts of overburden, rock, tailings and sludges and their associated risks	105
Local Commu	unities	
MM6	Significant disputes relating to land use, customary rights of local communities and indigenous peoples	105
MM7	Extent to grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and indigenous peoples and the outcomes	105
Closure Plani	ning	
MM10	Number and percentage of operations with closure plans	105

## **APPENDIX FOUR: EXTERNAL ASSURANCE**

[102-56]



## **Independent Assurance Statement**

Report No. 0919/BD/0024/JK

#### To the management of PT Agincourt Resources

We were engaged by PT Agincourt Resources ('PTAR') to provide assurance in respect to its Sustainability Report 2018 ('the Report'). The assurance engagement was carried out by our highly experienced assurance team whose diverse and complementary skills ensure a high level of competence in carrying out their duties.

#### Independence

We carried out all assurance undertakings with independence and autonomy having not been involved in the preparation of any key part of the Report. Nor did we provide any services to PTAR during 2018 that could conflict with the independence of the assurance engagement.

#### **Assurance Standards**

Our work was carried out in accordance with ISAE3000 'Assurance Engagements other than Audits or Reviews of Historical Financial Information' issued by the International Auditing and Accounting Standards Board. In addition, the work was also planned and carried out to conform to AA1000AS (2008) 'AA1000 Assurance Standards (2008)', issued by AccountAbility.

#### Level of assurance and criteria used

By designing our evidence-gathering procedures to obtain a limited level of assurance based on ISAE3000 and a moderate level of assurance engagement as set out in AA1000AS (2008) readers of the report can be confident that all risks or errors have been reduced to a very low level, although not necessarily to zero. Moreover, the Report was also evaluated in accordance with the criteria of AA1000 AccountAbility Principles (2018) of Inclusivity, Materiality, Responsiveness and Impact and Global Reporting Initiative (GRI) Standards Core Option to assess the reliability of the information disclosed in the report.

#### **Scope of Assurance**

We provided a Type 2 assurance engagement under AA1000AS (2008) This involved:

1) assessment of PTAR's adherence to the AA1000 AccountAbility Principles (2018); and

- 2) assessment of the accuracy and quality of the specified sustainability performance information contained within the Report, in relation to the agreed scope, which consisted of:
  - Economic and fiscal benefit
  - Disposal of tailings
  - Site water management
  - Occupational health and safety
  - Community development program.

#### Responsibility

PTAR is responsible for the preparation of the Report and all information and claims therein, which include established sustainability management targets, performance management, data collection, etc. In performing this engagement, meanwhile, our responsibility to the management of PTAR is solely for the purpose of verifying the statements it has made in relation to its sustainability performance, specifically as described in the agreed scope, and expressing our opinion on the conclusions reached.

#### Methodology

In order to assess the veracity of certain assertions and specified data sets included within the report, as well as the systems and processes used to manage and report them, that include review on the application of GRI Standards Core Option in relation to the agreed scope, the following methods were employed during the engagement process:

- Review of report, internal policies, documentation, management and information systems
- Interview of relevant staff involved in sustainability-related management and reporting
- Following data trails to the initial aggregated source, to check samples of data to a greater depth.

#### Limitations

Our scope of work was limited to a review of the accuracy and reliability of specified data and interviews with data providers, persons in charge of data collection and processing, as well as persons in charge of sustainability performance-related information.





#### **Conclusions**

We have confirmed that the Report has been prepared in accordance with GRI Standards Core Option.

Conclusions in regard to adherence to the AA1000 AccountAbility Principles of Inclusivity, Materiality, Responsiveness and Impact include the following findings:

#### Inclusivity

An assessment was made on whether PTAR has included all key stakeholders in developing and achieving an accountable and strategic response to sustainability issues.

Demonstration of PTAR's strong commitment to stakeholder inclusivity included the conduct of needs assessment surveys and materiality level survey of the key stakeholder groups. Thus our overall assessment was that PTAR has set in place an effective system that enables key stakeholders to participate in the development of the organization's response in the context of sustainability.

In order to maintain and strengthen the effectiveness of this inclusivity, however, we recommend that PTAR carries out regular monitoring of its systems and procedures, plus implements improvements where necessary.

#### Materiality

With stakeholders requiring material information on which to base their informed judgments, decisions and actions, an assessment was carried out to determine the extent to which PTAR has included such information in the Report.

PTAR's strong commitment to meet stakeholder needs in this field was evidenced by the provision of adequately reported and balanced information on key material issues. Nevertheless, as demands for information continue to increase, we recommend that PTAR conducts materiality tests on a regular basis for inclusion in future reports.

#### Responsiveness

It is increasingly important to respond in meeting stakeholder expectations and an assessment was carried out to determine the degree to which PTAR demonstrates its accountability in this area. PTAR's allocation of resources to stakeholder engagement, the timeliness and accessibility of reported information, and the types of communication mechanisms regularly employed were all indicative of its responsiveness to key stakeholder concerns and expectations. As in other areas, however, vigilance is a key and we recommend that PTAR conducts regular monitoring and improves stakeholder engagement procedures where necessary in future reports.

#### Impact

An assessment was made on whether PTAR has monitored, measured and is accountable for how its actions affect their broader ecosystems.

PTAR has integrated identified impacts into key management processes, for example, the materiality assessment process and organisational strategy, governance, goal-setting and operations.

In order to strengthen the effectiveness of assessment and disclosure of impacts, we recommend that PTAR continues conducting regular monitoring of its systems and procedures, plus implements improvements where necessary.

Based on our limited assurance engagement, the report has reflected the application of GRI Standards Core Option. In addition, nothing has come to our attention that causes us to believe the data of the Report has been materially misstated.

All key assurance findings are included herein, while detailed observations and follow-up recommendations have been submitted to PTAR management in a separate report.

Jakarta, October 1, 2019



James Kallman

Chief Executive Officer

Moores Rowland is an international organization specializing in audit, accounting, tax, legal and advisory services. Moores Rowland is a member of Praxity AISBL, the world's largest Alliance of independent and unaffiliated audit and consultancy companies. Praxity is served by Moores Rowland in Indonesia, one of the leading sustainability assurance providers.



# **APPENDIX FIVE: GLOSSARY - GENERAL TERMS**

All-in Sustaining Cost (AISC)	A standardised way to measure the cost of gold production introduced by the World Gold Council in 2013. It includes direct mining and processing costs (cash costs) plus mining lifecycle costs related to sustaining production from exploration to closure.
Analytical Laboratory	A testing facility for measurement of the physical, chemical and/or biological properties of water, soil, rock or other materials.
Biodiversity	The variety of plants and animals within an eco-system, and the way they live and interact.
Business and Biodiversity Offsets Programme (BBOP)	An international collaboration between companies, financial institutions, government agencies and civil society organizations. The members are developing best practice in following the mitigation hierarchy to achieve no net loss or a net gain of biodiversity.
Biodiversity Offsets	Biodiversity offsets are measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development and persisting after appropriate avoidance, minimization and restoration measures have been taken.
Contractors	Providers of services to an organisation or company based upon agreements written in a contract.
Corporate Governance	Corporate governance can be defined as the system of rules, practices and processes by which a company is directed and controlled in order to ensure accountability, fairness and transparency in its relationships with its stakeholders.
Downstream Waters	Rivers, streams and lakes that receive flow from a defined area.
Environmental Impact Assessment (AMDAL)	One of the key regulatory approvals required in Indonesia for a mine to proceed. The AMDAL consists of several documents including the Terms of Reference, Environmental Impact Statements (AMDAL) and Environmental Management and Monitoring Plans (RKL & RPL).
Equator Principles	The Equator Principles (EPs) is a risk management framework, adopted by financial institutions, for determining, assessing and managing environmental and social risk in projects, and is primarily intended to provide a minimum standard for due diligence and monitoring to support responsible risk decision-making.
Geological Core Sheds	A facility where rock samples (cores) produced by exploration drilling are stored, catalogued and analysed.
Haul Roads	Roads designed for use by large dump trucks at mine sites.
High Voltage Switchyard	A facility for the control and transmission of high voltage power. At a mine site, normally located between a power station and equipment requiring electricity.
International Cyanide Management Code	The Cyanide Code is a voluntary initiative for the gold and silver mining industries and the producers and transporters of the cyanide used in gold and silver mining. It is intended to complement an operation's existing regulatory requirements.
IFC Performance Standards on Environmental and Social Sustainability	Environmental and Social Performance Standards define International Finance Corporation (IFC) clients' responsibilities for managing their environmental and social risks. They use the World Bank Group Environmental, Health and Safety Guidelines (EHS Guidelines) as a technical source of information during project appraisal. The IFC Performance Standards are referenced by the Equator principles and are often used as the basis for assessing a projects implementation of sustainable development.

Lost Time Injuries (LTI)	A work related injury that causes the employee to miss the next regularly scheduled work shift.
Lost Time Injury Frequency Rate (LTIFR)	A ratio of the number of LTIs per million hours worked: LTIFR = LTIs X 1,000,000 / total hours worked.
Mineral Resource	The quantity of gold or silver in defined deposits for which there are reasonable prospects for eventual economic extraction. A mineral resource is determined from exploration and sampling.
Mine Closure Plan	A plan that documents all the rehabilitation, revegetation and other activities that are needed to make a former mine site safe, stable and productive to an agreed standard following mine closure. Includes tabulation of costs associated with mine closure.
Operating Permits	Permits issued by various levels of government which allow exploration and mining operations to operate under certain terms and conditions.
Ore Reserve	The economically mineable part of the mineral resource. It is the ore reserve that determines mine life, together with production rate.
Oxidation	Reaction of a material typically due to exposure to oxygen and water (rust is a result of oxidation).
Plant Nursery	A facility where trees and plants are propagated and grown to a size good for planting.
Processing Plant	The facility where ore is processed to extract metals such as gold and silver.
Raw Water Storage Tanks	Tanks for the storage of clean water (e.g. rainwater runoff or water from streams or rivers).
Rehabilitation	The process of reclaiming land disturbed by mining activities to a safe, stable and productive state.
Remuneration	Basic wage or salary plus any additional amounts paid to employees such as bonuses, overtime and special allowances.
Rock Slurry	A mixture of finely ground rock particles and water (like a mud).
Sediment Dams	Dams used to hold water for a period to allow sediments (fine soil and rock particles) to settle out.
Social licence to operate	A refers to a local community's acceptance or approval of a company's project or ongoing presence in an area.
Subaerial Tailings Deposition	The systematic deposition of tailings in thin layers, allowing each layer to settle, drain and partially air-dry before covering with an additional layer.
Suppliers	Organizations or people that provide a product or service used by another organization or company.
Surface Mining	Method of extracting minerals located near the surface of the ground, by mining from an open pit (as opposed to underground mining using shafts and tunnels).
Sustainability	Development which meets the needs of current generations without compromising the ability of future generations to meet their own needs.
Tailings	The fine rock slurry that remains after the minerals of value has been recovered in a processing plant.
Tailing Storage Facility (TSF)	A structure for the permanent storage of tailings (typically comprising an embankment or wall enclosing the tailings).
TSF design freeboard allowance	The spare capacity required in a TSF to safely accommodate an extreme rainfall event.

Waste Rock	Rock mined from a pit that contains insufficient mineralisation for treatment and has no economic value.
Water Balance	A calculation of total water held within a system or structure taking into account water inflows and water outflows over time.
Water Diversion Drains	Drains that direct runoff water around areas or structures.
Water Polishing Plant	The facility at the Martabe Gold Mine that removes any contamination from site processing water so that it is safe to release.
World Gold Council (WGC)	The market development organisation for the gold industry. Its purpose is to provide industry leadership and stimulate demand for gold.

# **GLOSSARY - GRITERMS**

Disclosures	Information about a company and its relationship with its stakeholders reported in its sustainability report.
General Disclosures	Disclosures that set the overall context for a sustainability report, providing a description of the organization and its reporting process. They apply to all organizations irrespective of their identified material Aspects.
Global Reporting Initiative (GRI)	An international not-for-profit organization promoting the use of sustainability reporting as a way for companies and organizations to become more sustainable and contribute to a sustainable global economy.
Impact	The effect an organization has on the economy, the environment, and/or society, which in turn can indicate its contribution (positive or negative) to sustainable development.
Indicators	GRI reporting requirements dealing with specific issues of the material Aspects.
Material Topic	Those aspects of an organisation that reflect its significant economic, environmental and social impacts; or that substantively influence the assessments and decisions of stakeholders.
Stakeholders	Stakeholders are defined as groups or individuals that can reasonably be expected to be significantly affected by an organization's activities, products, and services; and whose actions can reasonably be expected to affect the ability of an organization to successfully implement its strategies and achieve its objectives.

# PTAR SUSTAINABILITY REPORT FEEDBACK FORM

[102-53]

We look forward to suggestions as to how to improve our sustainability reporting so that it can best meet the interests and concerns of our stakeholders. Please use this form to let us know what works well and what can be improved. All submissions will remain anonymous, and results will be reported in the next Sustainability Report.

## **Report Coverage**

This report focuses on 13 material Aspects (below). These are the potential economic, environmental and social impacts associated with the Martabe Gold Mine that that we understand to be of most interest to our stakeholders.

- Please add to the list below any other Aspects that you think we should be reporting on.
- Please mark with a cross the five Aspects that you think are of most importance for the Martabe Gold Mine (you may include Aspects that you have added)

Fiscal and Economic Benefit	
Environmental Compliance	
Disposal of Tailings	
Disposal of Waste Rock	
Management of Hazardous Industrial Wastes	
Protection of Water Resources	
Rehabilitation and Mine Closure	
Protection of Biodiversity	

Health and Safety	
Local Employment	
Gender Diversity	
Employee Development	
Community Development	

#### **Level of Detail and Technical Content**

PTAR Sustainability Reports are intended to be a useful source of information for all our stakeholders. We try to communicate important information in a way that can be easily understood by most people, including those with no experience of the mining industry.

· Please tick one of the boxes for each question below.

Questions	Yes	No	Unsure
Overall, was there sufficient information in this report to meet your needs?			
Overall, did you find the report easy enough to read and understand?			
The data presented in Appendix 2 is based on the GRI Standards. Did you find it of use in understanding the Company's management of sustainability?			

•	Please indicate below what additional numerical data (if any) you would like to see reported year-by-year in PTAR Sustainability Reports.				
Α	ccuracy and Balance				
•	Did you find this report reasonably balanced and accurate? We would appreciate if you could explain any concerns that you may have in this regard below:				
R	eport Layout and Design				
•	Do you have any suggestions regarding report layout and/or design that would help make the next report easier and/or more interesting to read?				

## **Some Information About You**

Some basic information about you will help us analyse and report on the data collected:

## Please tick the box that best describes you.

Where do you call home?	Tapanuli Selatan	
	Elsewhere in Sumatra	
	Elsewhere in Indonesia	
	Outside of Indonesia	
Are you employed at the Martabe Gold Mine or otherwise employed by PTAR?	☐ Yes ☐ No	
Which of these terms best describes you:	School educated	
	College/University educated	
	Other	
Which age group do you belong to?	Below 18 years	
	18 to 55 years	
	Above 55 years	ī

## **How to Submit this Form**

- 1) Scan or photograph and email to: martabe.sustainability@agincourtresources.com
- 2) Mail or deliver to our office in Jakarta:

DGM Business Services Wisma Pondok Indah 2 Jl. Sultan Iskandar Muda Kav V-TA, Pondok Indah Jakarta 12310

3) Deliver to the Martabe Gold Mine:

DGM Business Services Martabe Gold Mine Batangtoru



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