

KAZ
MINERALS



SUSTAINABILITY REPORT 2021

KAZ MINERALS

17 March 2022



Delivering long-term growth
with high social and environmental
standards is core to our strategy
and licence to operate.

Sustainability Report

2	Sustainability overview
5	Safety and health
7	Environmental impacts
14	Stakeholders
21	Glossary
22	Cautionary Notice

DELIVERING SUSTAINABLE GROWTH



Oleg Novachuk

Chair, KAZ Minerals



KAZ Minerals is a responsible operator of mining assets in Kazakhstan and Kyrgyzstan. Delivering long-term growth with high social and environmental standards is core to our strategy and licence to operate.

Sustainability in 2021

KAZ Minerals is a responsible operator of mining assets in Kazakhstan and Kyrgyzstan.

Copper is essential to development, including the delivery of the energy and transport infrastructure necessary to drive continued improvement in living standards across the world. Furthermore, the technologies required to deliver the global transition to low carbon energy generation and low emissions transportation are more copper intensive when compared with established technologies. The Group's strategy of growing copper production through the development of the large scale, low cost mining projects required to meet future demand serves a clear purpose for wider society.

During 2021, KAZ Minerals has continued to enhance the sustainability of its assets, with a key focus on improving its operational efficiency to do more with less. The Group has invested in exciting new data-led technologies which will keep us at the forefront of innovation in mining at our world class Aktogay and Bozshakol mines. Additionally, we have continued to drive ongoing initiatives to improve our safety performance. The TRIFR in 2021 of 1.02 was the lowest in the Group's history and we were pleased that 2021 was a fatality-free year. The safety of our employees and contractors on site is our highest priority and we will continue working towards Goal Zero until our operations are incident-free.

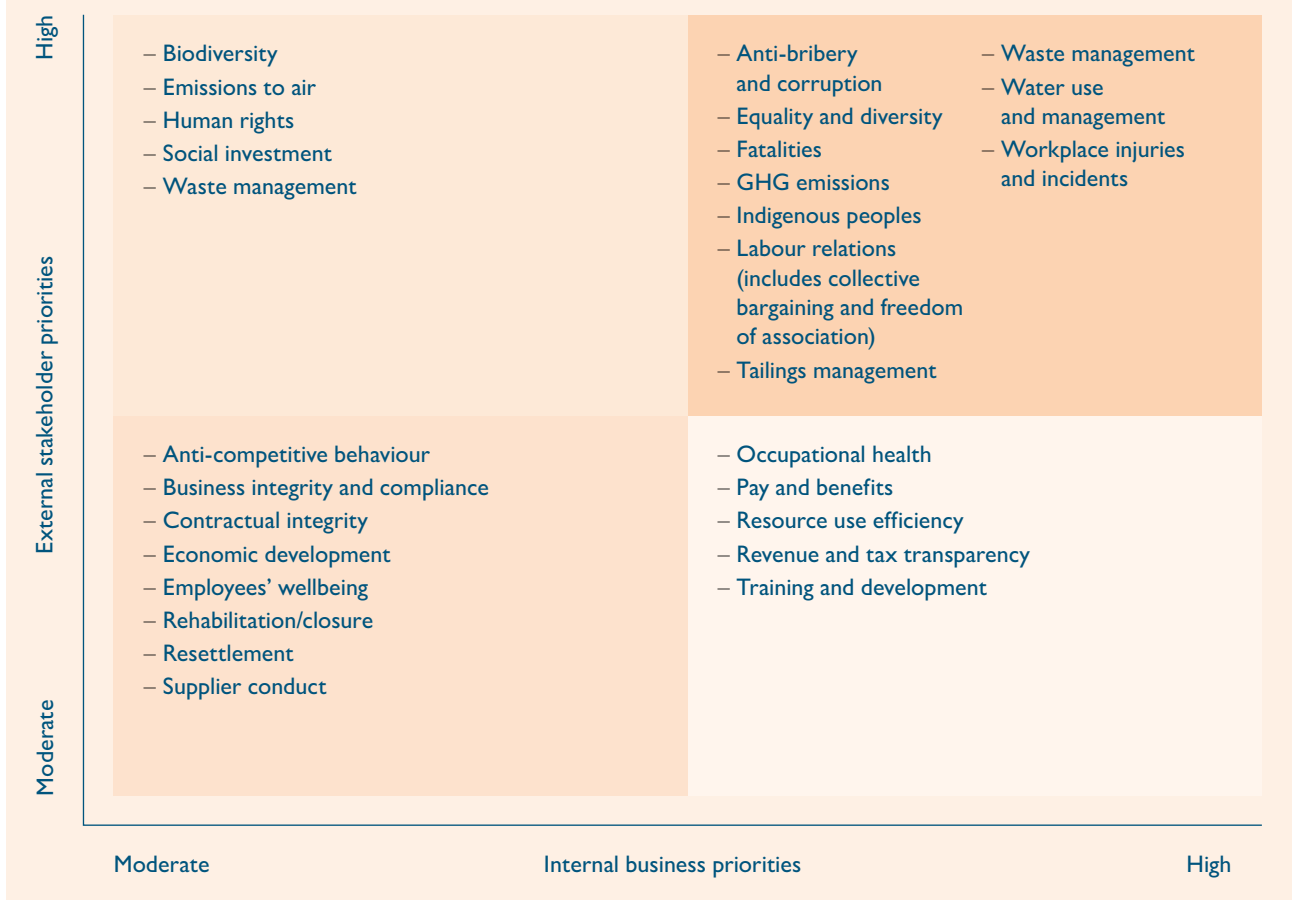
Covid-19 continued to present challenges to the mining industry in 2021 and I am happy to report that, thanks to the collective efforts of our employees, contractors and management, the Group's operations were not disrupted. Our focus has remained on safety and health, with comprehensive testing and quarantine measures implemented as required, alongside a successful programme to offer all of our employees and contractors at our sites a vaccination against Covid-19. The overwhelming majority of those who were offered a vaccine have now received it, and the programme remains ongoing.

I am extremely proud of the work KAZ Minerals does to benefit all of our stakeholders and to meet its goal of managing the environmental impact of our activities. We remain committed to operating with high standards as we deliver long-term growth, recognising that social and environmental responsibility is at the core of our strategy and licence to operate.

Oleg Novachuk

Chair, KAZ Minerals

Materiality assessment



Sustainability targets

The Group established targets to improve its performance across four key sustainability metrics, to be achieved over the five year period ending 31 December 2024:

Safety and health

eliminate occupational fatalities

CO₂ emissions per unit of sulphide ore processed

*reduce by 5%**

* Using 2018 as base year.

Water consumption per unit of sulphide ore processed

*reduce by 5%**

* Using 2018 as base year.

Social

*maintain social spending at or above \$15 million per annum***

** Subject to identifying suitable projects which meet the Group's social investment criteria.

The Group is expecting to increase its output of copper over the five year period ending 31 December 2024, over which its targets have been set. This is likely to lead to an absolute increase in CO₂ emissions and water consumption.

To properly reflect efficiency gains from operational improvements made over the five year period the Group has adopted intensity targets for its CO₂ emissions and water consumption.

KAZ MINERALS SUSTAINABILITY OVERVIEW CONTINUED

Sustainability reporting framework

The Group seeks to align its sustainability reporting with GRI Standards (Core). The GRI Standards are a set of sustainability reporting standards published and maintained by the Global Reporting Initiative ('GRI'), an independent organisation established in 1997 to create common standards for reporting by companies and governments.

The Group reports its safety and health performance according to the occupational injury and disease classification definitions published in January 2014 by the ICMC.

National context and economic contribution

KAZ Minerals is a copper producer with mining operations in Kazakhstan and Kyrgyzstan. In 2019 the Group acquired the Baimskaya copper project, a major greenfield asset in the Chukotka region of Russia which has the potential to become a large scale, open pit copper mine.

In Kazakhstan the Group operates the Aktogay and Bozshakol mines and concentrators, as well as three underground mines and two associated concentrators in the East Region, employing approximately 15,300 staff. In 2021 the Group exported 110 kt of copper cathode from Kazakhstan to customers in China and Europe (2020: 123 kt) and 143 kt of payable copper in concentrate,

mainly to China (2020: 177 kt). The Group generated revenues of \$2,784 million in 2021 and made a total tax contribution of \$477 million in Kazakhstan, including \$146 million of corporate income tax and withholding tax and \$193 million of MET.

The Group employs approximately 1,000 staff in Kyrgyzstan where it operates the Bozymchak copper-gold mine. Tax payments of \$24 million were made in 2021.

The Group has invested over \$5 billion in the construction of new mining facilities in Kazakhstan from 2011 to 2021, principally at its Aktogay and Bozshakol sites. The Aktogay expansion project was opened in October 2021 by the President of Kazakhstan and the Group expects to make around \$100 million of finalisation payments to contractors in 2022.



School children from the Aktogay village performing on the dombra, a Kazakh stringed instrument. The Group provides funding and support to local educational institutions.

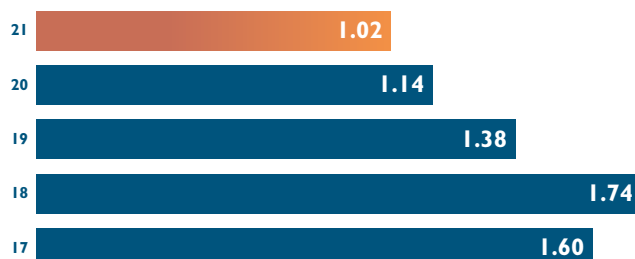
SAFETY AND HEALTH

KAZ Minerals aims to provide safe working conditions for all employees and contractors, and we are pleased to report that there were no fatalities across the Group's operations in 2021. The Board and senior management have committed to the Group's Goal Zero initiative, which covers industrial safety, occupational safety and environmental protection. The Group's focus on safety has driven a long-term downward trend in the number of injuries and fatalities at its operations.

Number of fatalities (employees and contractors)



Total Recordable Injury Frequency Rate (TRIFR)



KAZ Minerals believes that all fatalities are avoidable and preventable. After any fatal incident, operations are suspended and senior management attend the site as soon as possible. All fatalities are investigated by state authorities. Once this process is completed, the Group conducts its own detailed investigation to establish root causes and identify any procedural or other changes required to prevent a recurrence of similar incidents.

Open pit mining is inherently safer than underground mining and the Group's safety performance has improved as its open pit mines have ramped up in recent years to represent the majority of the Group's production. No operational fatalities have occurred at any of the Aktogay, Bozshakol and Bozymchak mines since these sites commenced production, covering a total of 85 million hours worked. Regarding Baimskaya, management has prioritised establishing strong safety practices since the Group's acquisition of the project, using its accumulated knowledge and operational experience.

Safety improvement initiatives – focus on East Region

Safety in the workplace is one of KAZ Minerals' core values and the Group continues to drive its Goal Zero initiative across its business.

Goal Zero was launched in 2019 and is aimed at reducing safety, health and environmental incidents to zero. KAZ Minerals is committed to implementing further improvements to its robust safety management systems, training and risk management processes to achieve Goal Zero.

Underground mining can be inherently less safe than open pit mining, and for this reason the East Region management team has been implementing various initiatives to improve safety performance for a number of years, including a baseline risk assessment across all its sites to identify the highest priority areas. A range of engineering and behavioural initiatives have been designed and implemented in order to respond to risk areas identified.

Fall of ground incidents are a risk area and as a result East Region management has been maximising its use of mechanised equipment in more challenging working environments. Other engineering initiatives to improve roof support practices are also expected to result in a long-term reduction in incidents.

Behavioural initiatives include enhanced training opportunities. Above ground, scale models have been created for training purposes at each mine which provide employees with initial and refresher courses on how to perform work in a skilled and safe manner during hazardous activities. These include ground support, explosives, working in confined spaces and electrical safety. Training is followed by an examination.

The East Region leadership team is continually working to embed a deep safety culture. The aim of spending '30% of time on safety' has become a widely adopted practice. The SLAM (Stop. Look. Assess. Manage.) technique is pervasive in the Group's East Region mines and during 2021 there has been a focus on further improving hazard reporting. When employees share hazards with one another, they reinforce the importance of safety through all of their actions at work, contributing to an improvement in the Group's safety performance over the year.

Injuries

The average TRIFR for ICMM members in 2020 was 2.94 (2019: 3.20). Under ICMM definitions, all injuries including lost time injuries, restricted work cases and medical treatment cases are recordable injuries. The reporting and investigation of hazards, minor injuries and near misses, with a focus on potentially high-risk incidents, are important management tools for improving safety and health performance.

In 2021 there were 54 TRI cases, unchanged from the 54 injuries recorded in 2020. Hours worked increased by 13% in 2021 to 53.1 million (2020: 47.2 million), mainly attributable to the 13.5 million hours worked at the Aktogay expansion project.

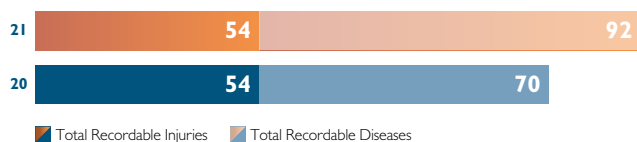
The Board and management were particularly proud that the Group's TRIFR reduced in 2021 to 1.02 (2020: 1.14), the lowest in the Group's history. The Group's focus on safety culture and procedures throughout its organisation has enabled a long-term reduction in its TRIFR which has continued during the year. KAZ Minerals' TRIFR has been well below the ICMM average for a number of years. Highlights of some of the safety improvement initiatives adopted in the East Region are included on page 5.

Over the period from 2018 to 2021, the Group's open pit mining operations achieved maximum lost time injury-free intervals of 341 days at Aktogay, 630 days at Bozshakol and 817 days at Bozymchak. Injury rates have also significantly reduced in the East Region operations over this period.

Total Recordable Cases Frequency Rate



Total Recordable Cases



Occupational health

There were 92 new cases of occupational diseases recorded in 2021 (2020: 70). The majority of the new cases in 2021 resulted from musculoskeletal disorders, neuropathic pain, silicosis and dust bronchitis.

Occupational health problems are usually the result of long-term exposure to risks such as poor ergonomics, vibration, dust or noise. The Group has measures in place to remove or reduce these risk factors where possible, for example by limiting the time that employees spend in roles which expose them to heightened occupational health risk factors. Annual medical checks are conducted to ensure the timely identification of emerging occupational health conditions.

During 2021, actions have been developed to address common causes of occupational disorders in the Group's underground operations including upgraded PPE and increased automation in high-risk working environments.

The open pit mines at Aktogay, Bozshakol and Bozymchak had no occupational health cases during 2021.

Vaccination programme

Throughout the Covid-19 pandemic, the Group's top priority has been to protect the safety and health of our employees and communities. During 2020 the Group took swift action to implement infection control measures at all of its sites, which included restricting access to its camp-based sites at Aktogay and Bozshakol and developing an extended rota schedule.

Following the announcement of vaccines against Covid-19 in late 2020 the Group set up a programme to offer vaccinations to all site-based staff and contractors which began in April 2021, alongside the rollout of vaccines by the government of Kazakhstan. The Group is fortunate to have appropriate medical facilities at its sites to enable full compliance with all requirements and protocols set by Kazakhstan's Ministry of Healthcare.

KAZ Minerals believes that vaccination is the best way for our workforce and their families to protect themselves from Covid-19. A mass communications campaign was carried out in advance of the vaccine programme to raise awareness of the benefits of the vaccine amongst our staff and contractors. This campaign included a series of videos and informational brochures and posters, and Q&A materials were distributed to respond to common questions and concerns. These materials were made available in Kazakh, Russian and English in order to maximise their impact and accessibility.

The take-up of vaccines has been widespread and has exceeded our expectations. Over 90% of all employees and contractors had received two doses of an approved vaccine before the end of 2021, with the vaccination rate in the East Region reaching 98%. The vaccination programme remains open to anyone who wishes to benefit from it.

Aside from the public health benefits of a widely vaccinated workforce, the success of the programme has enabled the Group to reduce the length of rotations at its camp-based sites. Alongside ongoing protective measures, such as testing and hygiene protocols, we are pleased to be making steps towards a return to normal working schedules and rotas.



ENVIRONMENTAL IMPACTS

KAZ Minerals seeks to reduce the impact of its activities on the environment and to raise environmental awareness amongst its employees, contractors and suppliers. The Group has an environmental policy which sets out its commitment to environmental protection, reduction of emissions and waste and efficient consumption of resources such as energy and water.

The Group conducts detailed environmental due diligence prior to the development of new mining projects and continually monitors the impact of its activities on the environment, publishing key performance indicators on an annual basis.

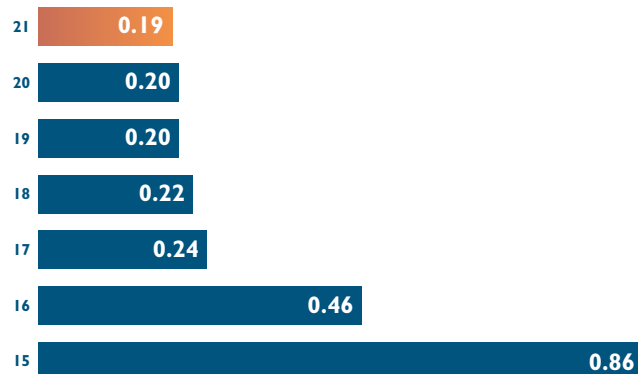
The Health, Safety and Sustainability ('HSS') Committee is a Board Committee which is responsible for oversight of the Group's environmental policies, reporting, standards and compliance. Senior management are responsible for the Group's overall environmental performance. For more details of the HSS Committee, please refer to pages 20 to 21 of the Governance Report.

The calculation of the Group's Scope 2 emissions in 2021 is based on an updated emissions factor calculated by the International Energy Agency. Prior year data has been recalculated to ensure a directly comparable result.



Energy use

TJ/kt sulphide ore processed



In 2021, KAZ Minerals achieved a further improvement in the energy efficiency of its operations, measured as energy use per tonne of sulphide ore processed. Since 2015 the Group has achieved long-term energy efficiency improvements as it has transitioned away from underground mining towards a focus on open pit mining at Aktogay and Bozshakol. These large scale, open pit mines benefit from significant economies of scale, with modern grinding and flotation technology employed at the concentrators, which drives efficiencies.

During 2021, the Group operated at above design capacity at the existing Aktogay sulphide plant, both Bozshakol concentrators and the Bozymchak concentrator, which allowed the Group to achieve a historically low level of energy use per tonne of sulphide ore processed. In addition, the Aktogay and Bozshakol mines benefit from a low strip ratio, with limited quantities of rock required to be removed per tonne of ore extracted, which also improves efficiency.

Energy use by type (PJ)	2021	2020
Electricity	9.10	8.87
Diesel	2.36	2.01
Heat	1.02	1.00
Coal	0.02	0.02
Petrol	0.05	0.05
Total	12.55	11.95
Energy intensity ¹	0.19	0.20

¹ TJ/kt sulphide ore processed

KAZ MINERALS ENVIRONMENTAL IMPACTS CONTINUED

Energy use by asset (PJ)	2021	2020
Aktogay	4.68	4.35
Bozshakol	4.65	4.46
East Region	2.88	2.87
Bozymchak	0.34	0.27
Total	12.55	11.95
Energy intensity ¹	0.19	0.20

¹ TJ/kt sulphide ore processed

Total energy use increased by 5% in 2021 to 12.55 PJ (2020: 11.95 PJ). The Group consumed higher volumes of electricity as its concentrators at Aktogay, Bozshakol and Bozymchak operated in excess of design capacity, and the second Aktogay concentrator commenced operations in October 2021. Ore mined increased in 2021 by 12% which resulted in an increase in diesel consumption. The Group expects diesel consumption to increase over the coming years as its Aktogay and Bozshakol pits deepen.

The energy intensity of the Group's activities reduced to 0.19 TJ per kt of sulphide ore processed as the increase in energy usage was more than offset by higher throughput at the Group's concentrators in 2021.

Electricity consumption (PJ)	2021	2020
Aktogay	3.76	3.63
Bozshakol	3.63	3.57
East Region	1.55	1.54
Bozymchak	0.16	0.13
Total	9.10	8.87
Electricity intensity ¹	0.14	0.15

¹ TJ/kt sulphide ore processed

The Group's electricity consumption increased by 3% in 2021 to 9.10 PJ (2020: 8.87 PJ) due to higher volumes of sulphide ore processed at all sites except East Region. Electricity consumption increased most significantly at Aktogay where the first sulphide concentrator increased throughput by 7% and the second sulphide concentrator was opened in October 2021. At Bozymchak, electricity consumption increased as the concentrator operated above its design capacity and in 2020 the Bozymchak site was closed for most of the fourth quarter.

Diesel consumption (PJ)	2021	2020
Aktogay	0.92	0.73
Bozshakol	1.01	0.88
East Region	0.28	0.28
Bozymchak	0.15	0.12
Total	2.36	2.01
Diesel intensity ¹	0.027	0.026

¹ TJ/kt ore mined

Diesel consumption increased during 2021 to 2.36 PJ (2020: 2.01 PJ), a 17% increase which reflected the higher volumes of ore mined during 2021 and the longer haulage distances at the Group's sites as the pits deepen. At Aktogay, ore mined increased by 33% in 2021 as the site prepared for the launch of the second sulphide concentrator in October 2021. At Bozshakol total rock moved increased by 2% which also led to an increase in diesel consumed at the site. Overall diesel intensity, measured as TJ of diesel per kt of ore mined, remained broadly consistent with 2020.

CO₂ emissions

CO ₂ emissions by type (kt)	2021	2020
Scope 1	430	408
Scope 2	1,607	1,571
Total	2,037	1,979
Copper production	299	306
CO ₂ per unit of copper produced	6.8	6.5
Ore processed	64,393	59,222
CO ₂ per unit of ore processed	0.032	0.033

Absolute CO₂ emissions in 2021 were 2,037 kt, a 3% increase from the prior year (2020: 1,979 kt), with consumption of diesel and electricity rising as the Group moved higher volumes of rock and processed more ore which resulted in higher Scope 1 and 2 emissions respectively.

Higher throughput resulted in a reduction in the CO₂ emitted per unit of ore processed to 0.032 tonnes (2020: 0.033 tonnes) due to the efficiency of the sulphide concentrators at Aktogay and Bozshakol. However, CO₂ emitted per unit of copper produced increased to 6.8 tonnes (2020: 6.5 tonnes) as although the Group processed more ore, lower average grades processed led to a 2% reduction in copper production.

Scope 1 emissions primarily relate to mining activities at Aktogay and Bozshakol as well as heat energy consumption in the East Region. Higher fuel usage in the mining fleet was the primary driver of the increase in Scope 1 emissions in 2021, with a colder winter in 2021 also resulting in an increase in emissions from the East Region.

Scope 2 emissions arising from the Group's purchase of electrical energy from third party suppliers increased by 2% in 2021 to 1,607 kt (2020: 1,571 kt) as the Group processed more ore in the year.

CO ₂ intensity	2021	2020
Revenue (\$m)	2,784	2,355
Total CO₂ emissions (Scope 1 and Scope 2, kt)	2,037	1,979
CO ₂ emissions (t per \$ million revenue)	732	840

The Group's CO₂ intensity by revenue in 2021, as measured by the Carbon Disclosure Project (tonnes of CO₂ per \$1 million revenue), was 13% lower at 732 tonnes as total emissions increased by 3% due to an increase in production, while revenues increased by 18% as the Group benefited from higher average copper prices during the year.

Reducing CO₂ emissions intensity

The Group is committed to minimising the CO₂ intensity of its operations in line with its environmental policy. The HSS Committee is responsible for monitoring the CO₂ intensity of the Group's operations. The General Directors of the Group's operations are responsible for implementing efficiency initiatives to minimise energy consumption at a site level.

In recent years reductions in CO₂ intensity have been achieved through the transition towards open pit mining using modern mining techniques.

In the longer term, the Group will seek to increase the use of renewable energy sources where possible. The Government of Kazakhstan, where the majority of the Group's assets are currently located, is developing a 2060 Long-Term Low-Carbon Development Strategy, under which the country is aiming to achieve carbon neutrality by 2060. Renewable energy sources will make up an increasing proportion of electricity generation and coal-fired power capacity will be phased out.



Artificial intelligence

KAZ Minerals seeks to adopt advanced technologies in its mining and processing activities in order to optimise its operational performance and minimise its use of resources. During 2021, the Group has enhanced its usage of artificial intelligence ('AI') in its mine to mill process in order to improve production efficiency and reduce its energy use per tonne of copper produced.

TRIT-AI

Aktogay adopted the TRIT-AI system at the first sulphide concentrator. Following a successful trial, the system is now being rolled out at Bozshakol and is expected to be used at the second sulphide concentrator at Aktogay.

The Group was one of the first companies in the CIS to deploy products of this type at its production sites, forming part of the Group's drive to maintain its position as an industry leader in digital innovation and operational efficiency.

The tool uses advanced analytics to optimise the ore enrichment process from the mine face, through the grinding and flotation circuit and finally to the tailings system. More than 500 million historical data points were initially used at Aktogay to create and train the tool. The programme then learns independently on an ongoing basis from new data to recommend improvements. Staff at the processing plant review the recommendations from the tool and determine how to implement them in practice.

The outcome of these recommendations is the optimisation of throughput capacity and recovery at the concentrators. The pilot implementation at Aktogay demonstrated an increase in copper recovery and in the volume of ore processed, with initial results supporting these conclusions. This enables the Group to operate more efficiently, and reduces the resources the Group must consume per tonne of copper produced.

The Group is forming teams of data scientists, machine learning specialists and data engineers at its sites to deliver projects of this nature.

Motion Metrics

Aktogay has partnered with Motion Metrics, a Canadian technology company which drives digital innovation in mining.

Motion Metrics is working with Aktogay to implement an AI-based solution in the mine to mill process which aims to minimise energy consumption and improve safety throughout the site. The tool analyses the particle size distribution at the shovels, crushers and conveyor belts in order to optimise the crushing and grinding circuits to reduce energy consumption. The tool also analyses the ore placed on the conveyors and monitors the integrity of the ground-engaging tools to ensure no foreign objects or excessively large boulders are sent to the crusher, which may cause downtime.

Eldar Mamedov, CEO of KAZ Minerals Management LLP, commented: "I am proud of the work that our team have performed to implement these artificial intelligence projects. We are deploying leading edge practices to maximise the efficiency and economic potential of the Aktogay mine."

TCFD disclosure table

KAZ Minerals continues to develop its processes on climate-related financial disclosures and supports the work of the Task Force on Climate-Related Financial Disclosures which requires companies to set out how their strategy and risk assessment processes align with the challenges and opportunities presented by climate change.

	Further details	Website	CDP survey response
Governance			
Describe the Board's oversight of climate-related risks and opportunities.	Governance Report Pages 8, 10-12, 15, 20-21	kazminerals.com/sustainability/environment/climate-change/tcfd/	2020 CDP Climate change questionnaire response C1.1a; C1.1b
Describe management's role in assessing and managing risks and opportunities.	Annual Report Pages 61-69	kazminerals.com/sustainability/environment/climate-change/tcfd/	2020 CDP Climate Change questionnaire response C1.2; C1.2a
Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term.	Annual Report Pages 64 Business Review Pages 6-9	kazminerals.com/sustainability/environment/climate-change/tcfd/	2020 CDP Climate Change questionnaire response C2.1a; C2.2a; C2.3a; C2.4a
Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning.	Annual Report Pages 61-69	kazminerals.com/sustainability/environment/climate-change/tcfd/	2020 Climate Change questionnaire response C2.1b; C2.3a; C2.4a; C3.3; C3.4
Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	–	–	2020 Climate Change questionnaire response C2.2a; C3.3
Risk management			
Describe the organisation's processes for identifying and assessing climate-related risks.	Annual Report Page 61	kazminerals.com/sustainability/environment/climate-change/tcfd/	2020 CDP Climate Change questionnaire response C2.2
Describe the organisation's processes for managing climate-related risks.	Annual Report Page 64	kazminerals.com/sustainability/environment/climate-change/tcfd/	2020 CDP Climate Change questionnaire response C2.2
Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management.	Annual Report Page 61	kazminerals.com/sustainability/environment/climate-change/tcfd/	2020 CDP Climate Change questionnaire response C2.2; C2.3
Metrics and Targets			
Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk-management process.	Sustainability Report Pages 3, 7-9	kazminerals.com/sustainability/environment/climate-change/tcfd/	–
Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 GHG emissions and the related risks.	Sustainability Report Pages 7-9	kazminerals.com/sustainability/environment/climate-change/tcfd/	2020 Climate Change questionnaire response C6.1; C6.3
Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	Sustainability Report Pages 3, 7-9	kazminerals.com/sustainability/environment/climate-change/tcfd/	–

Waste

The Group is committed to the responsible management of mineral waste and other waste products, as set out in its Environmental policy. The Group HSS Committee is responsible for monitoring waste management. The General Directors of the Group's operations are responsible for waste management at a site level.

Waste rock by asset (Mt)	2021	2020
Aktogay	6.8	8.6
Bozshakol	15.4	9.0
East Region	0.1	0.1
Bozymchak	2.4	2.6
Total	24.7	20.3
Waste intensity ¹	82.6	66.4

¹ kt/kt copper production

The majority of the waste generated by the Group is in the form of waste rock from the mining of overburden, mainly at the Group's open pit mines at Aktogay, Bozshakol and Bozymchak. The generation of waste rock at Aktogay and Bozshakol is not considered to be a significant stakeholder issue due to the remote locations of the mines, their low strip ratios and their separation distances from local communities. Waste rock mining increased in 2021 by 22% to 24.7 Mt (2020: 20.3 Mt) in line with the mine plans.

Tailings by asset (Mt)	2021	2020
Aktogay	27.5	23.7
Bozshakol	32.1	31.0
East Region	2.1	2.1
Bozymchak	1.7	0.8
Total	63.4	57.6
Tailings intensity ¹	212	188

¹ kt/kt copper production

Tailings waste generation increased by 10% in 2021 to 63.4 Mt (2020: 57.6 Mt), with most of the increase associated with the 16% increase in sulphide ore processed at Aktogay.

The safe and effective management of tailings waste is a high priority for the Group. Operating procedures are in place for the monitoring and maintenance of tailings storage facilities, including regular inspection and testing of nearby groundwater to detect and maintain structural integrity. The Group periodically arranges for inspections by independent external experts, with all active tailings storage facilities inspected during 2021. KAZ Minerals will seek to align its tailings management and disclosure with the Global Industry Standard on Tailings Management set out by ICMM, the PRI ('Principles for Responsible Investment') investor network and the United Nations Environment Programme.

The Group is required to comply with the laws of the Governments of Kazakhstan and Kyrgyzstan in relation to the licencing, upkeep and maintenance of tailings storage facilities. State authorities regularly inspect the Group's tailings storage facilities to ensure compliance with regulations. No significant deficiencies have been identified in the stability of the Group's tailings storage facilities.

Ongoing work programmes, supported by appropriate external consultants, are in place to develop the tailings dams in line with future production plans and to address any issues identified.



For more information on tailings management at KAZ Minerals, please visit www.kazminerals.com/sustainability/environment/waste/

Industrial waste management at Bozshakol

While most of the waste material produced by the Group is either rock or tailings material, KAZ Minerals has been working to embed a deep culture of environmental management throughout all of its activities.

The Bozshakol team has been working to optimise its industrial waste management since it started production. A comprehensive waste management programme has been developed on site which includes understanding all items of waste produced, seeking waste minimisation opportunities, appropriate categorisation, labelling and storage of waste materials, recycling or reusing all waste items where possible, and ultimately using waste passports to ensure that the items which must be sent to landfill are done so responsibly.

Since 2017, Bozshakol has achieved a notable improvement in the proportion of its waste which is recycled, increasing from 33% to 53%. In 2021, this represented nearly 6,600 tonnes of waste which was recycled.

Bozshakol has successfully found a market for many of its waste products, including plastic, scrap metal, paper, cardboard and grinding balls. Not only does this reduce the volume of materials going to landfill, but it also helps to support small and medium-sized businesses in the region, as well as the local people they employ. Additionally, the Group is able to avoid the greenhouse gas emissions which have been generated by disposing of the waste in landfill.



Aktogay tailings storage facility

KAZ MINERALS ENVIRONMENTAL IMPACTS CONTINUED

Water

The Group is committed to reducing water consumption where possible, as set out in its Environmental Policy. The Group HSS Committee is responsible for monitoring water use. The General Directors of the Group's operations are responsible for implementing efficiency initiatives to minimise water consumption at site level.

Sources of water for use in new mining projects are considered in detail prior to commencement of construction and this analysis forms an integral part of any scoping or feasibility study. The KAZ Minerals Projects Division, together with senior management and the Board, considers the availability of fresh water for copper processing and any likely adverse effect on local communities or the surrounding environment before approving a new development project.

All of KAZ Minerals' existing mining and processing sites benefit from access to sufficient fresh water to meet design capacity and none of the Group's operations are located in water-stressed areas. The Group seeks to conserve and recycle as much water as possible, with the main sources of reusable water being from tailings and mine water inflow. The Aktogay and Bozshakol sulphide concentrators are designed to be efficient in their water consumption and utilise processes to reduce potential losses through evaporation.

Water withdrawal by asset (megalitres)	2021	2020
Aktogay	18,399	15,483
Bozshakol	13,771	7,566
East Region	8,991	8,146
Bozymchak	451	330
Total	41,612	31,525

Water intensity by asset (m ³ per t ore processed)	2021	2020
Aktogay	0.38	0.45
Bozshakol	0.42	0.24
East Region	3.44	3.06
Bozymchak	0.40	0.41
Total	0.49	0.45

Water withdrawal across the Group increased by 32% in 2021, primarily as a result of higher water usage at Bozshakol where maintenance works at the tailings storage facility temporarily inhibited water recycling in the second quarter. Water recycling recommenced in the third quarter and water usage in the second half of the year was significantly lower than in the first half. At Aktogay, higher water usage is a result of the 16% increase in sulphide ore processed in 2021.

The water intensity of the Group's operations measured as cubic metres per tonne of ore processed also increased in 2021 to 0.49 m³/t (2020: 0.45 m³/t), mainly due to an increase in water usage at Bozshakol and the East Region, where less water was recycled from the tailings facility in the Nikolayevsky open pit during its initial stages of operation.

Water withdrawal by source (megalitres)	2021	2020
Surface water	17,506	10,430
Groundwater	24,106	21,095
Total	41,612	31,525

Total water extraction of 41,612 megalitres consisted of 17,506 megalitres extracted from surface water sources, including rivers or municipal water supplies, and 24,106 megalitres extracted from groundwater wells.



For an explanation of the water recycling process at Aktogay and Bozshakol, and for more information about water management in general, please visit www.kazminerals.com/sustainability/environment/water/

Drones at Bozshakol

KAZ Minerals Bozshakol has been making increasing use of drones throughout the mine site in order to promote safe and efficient work across its operations. Worker safety is our highest priority and KAZ Minerals actively seeks to identify areas of its operations where technology can be used to achieve a reduction in hazardous work by staff.

Drones have been used to automate surveying work, where they can deliver comprehensive and real-time data when combined with photogrammetry software. Drones are able to access hard-to-reach areas around the open pit, stockpiles and waste dumps, which removes the requirement to send survey teams to areas where access is difficult or dangerous. Additionally, drones have been used to assess the condition of power lines and determine whether routine maintenance is required. This reduces the requirement for staff to work at height and provides a significant safety benefit.

High resolution aerial photography of the Bozshakol tailings storage facility has provided a significant benefit to the on-site team when assessing the condition of the tailings storage facility as a whole, including the condition of embankments and distribution of suspended material in recycled water. Drones can be used to provide ongoing surveillance of the tailings storage facility to allow a proactive response to any identified issue.

The Bozshakol management team has also used drones in its geotechnical works at the pit, enabling an ongoing assessment of slope stability and the mapping of open pit walls. Drones have also proved useful in site planning, including the placement of ore stockpiles, waste dumps, topsoil stockpiles, the location of roads and the design of power lines in order to drive ongoing safety improvements and operational efficiencies.



Biodiversity

The Group is committed to the protection of biodiversity in the areas which may be affected by its operations and avoids operating in areas with a high biodiversity value. The Group's priority for biodiversity management in recent years has been to mitigate any adverse effect that the development of the major growth projects at Aktogay and Bozshakol could have. At the Baimskaya copper project, as part of the Bankable Feasibility Study, the Group commissioned an assessment by an independent third party. While no protected species were identified during this assessment, the Group will continue to prioritise avoiding any adverse biodiversity impact on the areas surrounding the project.



Read more about our approach to biodiversity
www.kazminerals.com/sustainability/environment/biodiversity/

Mine closure

The Group is committed to rehabilitating mine sites after closure, as is required by law in the countries we operate in. The General Directors of the Group's operations are responsible for compliance with closure and rehabilitation obligations. The Group periodically reviews and updates closure plans for each of its sites, including calculating the likely costs associated with closure. Provisions are made in the Group's financial statements, representing the discounted value of the estimated costs to decommission and reclaim the mines based on the current estimated life of mine of each deposit. During 2021, the Group began capping works at the Nikolayevsky above-ground tailings storage facility, as part of a retirement programme after deposition of tailings material was ceased in 2020.



For more information on the mine closure process at KAZ Minerals, please visit www.kazminerals.com/sustainability/environment/mine-closure/

Environmental permitting and compliance

Environmental permits are granted for the Group's operations, setting annual limits for emissions, water use and water discharge. If levels exceed these limits, charges are applied in proportion to the amount of emissions or usage in excess of the limits. The majority of the charges paid by the Group in 2021 are considered administrative in nature, and are not considered fines for breaches of regulations. Excess emissions charges are not related to any potential risk to the environment or the safe operation of our tailings facilities or other environmental management systems.

Environmental regulation

On 2 January 2021, a new environmental code was passed into law in Kazakhstan. The new code represents a significant modernisation of environmental regulations in Kazakhstan and, through the Mining Association, KAZ Minerals was actively involved in the drafting stages of the new code.

Tree planting

In 2021, Bozshakol began the first phase of a project to increase the number of trees and other plants at the site. Over 4,000 seedlings have been planted in a protected area covering 20 hectares, including nearly 3,000 trees and over 1,000 shrubs. The plants used for this project were chosen for their ability to withstand the harsh climatic conditions in the region, and for their suitability for the local soil quality. In addition, over 450 m² of flower beds and over 19,000 m² of grass have been planted at Bozshakol.

Planting vegetation helps to support local ecosystems and is a means for the Group to foster biodiversity in the harsh steppe climate. Additionally, it helps the Group to respond to a further environmental issue in the region – that of soil erosion. The vegetation planted around the site will help to reduce soil erosion naturally and, in addition, eroded slopes covering nearly 11,000 m² have been supported and strengthened over the past four years.

Bozymchak is also working to improve the biodiversity of the local region, and has planted more than 100 conifer trees in the Kosh Bolot village, near the mine site, within the framework of a social partnership with the local community.

Both campaigns form part of the Group's intention to preserve biodiversity and ensure the health of the local environment in the regions in which it operates.



STAKEHOLDERS

Employees

The Group seeks to attract and retain skilled staff by offering safe working conditions, fair remuneration in line with market rates of pay and social benefits packages for its employees and their families.

Policies and due diligence

The Group has a number of policies in place which govern its relationship with employees, including the Code of Fair Employment and the Diversity and Equality Policy. The Group periodically reviews the terms and conditions of employment in its own operations to confirm that the Code of Fair Employment is being fully applied within the Group. Due diligence is conducted on recruits prior to their employment in the Group.

Consultation and communication

Several communication channels are open to employees to make their views known to senior management and the Board. The first point of contact is with an employee's line manager, and in most cases this is sufficient for addressing employee concerns. The Group holds a 'Direct Line' event every year in which the Chair answers questions from employees on a live video feed. Each of the Group's operational divisions has a Head of Employee Relations whose role is to act as a liaison between employees and management. General Directors hold quarterly 'town hall' meetings.

Outside of operational or human resources related enquiries, all employees have access to a confidential telephone reporting line ('Speak Up') which can be used to raise ethical concerns, including any concerns related to bribery and corruption. All Speak Up reports are investigated and the Audit Committee receives regular updates on issues raised.

The Group uses a number of channels to communicate with its staff including websites, intranet sites, WhatsApp message groups, a corporate newsletter, TV news and a YouTube channel. Each of these communication channels has certain strengths which are suitable for use in different scenarios. During 2021 many of the Group's employees worked remotely, or were periodically in isolation prior to entering the Group's camp-based sites as a result of the Covid-19 pandemic and, as a result, accurate and effective communications were essential to engage with staff and keep them informed of any updates to procedures and requirements.

KAZ Minerals respects the right to freedom of association, and we consult with our employees and trade unions about changes to our business and employment conditions. All employees are entitled to join a union of their choice. At 31 December 2021, 63% of the Group's employees belonged to one of the three trade unions active in the mining industry in Kazakhstan (2020: 69%).

Best employer in the mining sector in 2021

KAZ Minerals is proud to have received the award for the best employer in the mining sector in Kazakhstan, in a competition conducted by Randstad, a global recruitment and employment agency which is headquartered in the Netherlands.

Randstad Employer Brand Research has been conducting the competition for 31 years in 34 countries, covering more than 80% of the global economy. This year it obtained responses from over 190,000 participants, and in Kazakhstan more than 100 companies took part in the competition.

Employee surveys are conducted and reviewed by specialists at Randstad in order to determine the awards. Analysis of the survey results indicated that the most significant criteria for choosing an employer in Kazakhstan were remuneration, the financial stability of the employer, career growth, a good working atmosphere and interesting work.

KAZ Minerals is delighted that it continues to offer its staff fulfilling careers. Oksana Omelchenko, Head of Training and Development at KAZ Minerals, commented on the event: "We are very proud of our first place ranking. We are glad that people recognise our desire to create comfortable, safe working and living conditions for employees in the Group's companies."





Investment in education

KAZ Minerals provides skilled employment to its staff and is looking to develop the next generation of mining professionals in Kazakhstan. To support this effort, Aktogay invests in the education and training of young professionals in the East Region of Kazakhstan.

Aktogay has provided over 150 grants in recent years to universities and colleges throughout the region, each of which has an appropriate specialisation in technical subjects. Azamat Kumargaliyev was awarded a grant and achieved a diploma with honours. He said, "I started studying at the Higher College of East Kazakhstan State University, having won one of the grants which were provided on a competitive basis. On graduation from college, I qualified as a chemical laboratory assistant. My plan for the future is to continue my studies at the university, and then work in the field of my speciality."

In addition to providing grants to students the Group has also donated equipment to local technical colleges so that all students can benefit from practical experience with the latest technologies used at the Group's world class mines and processing facilities.

In Ust-Kamenogorsk and Ayagoz, Aktogay has modernised college classrooms and purchased or donated equipment, including mechanical equipment and loaders. It has enhanced laboratory classrooms by fitting them with interactive training tools, video demonstrations, equipment and sets of chemical reagents, while students specialising in mineral enrichment have benefited from laboratories which are newly equipped with technology required to learn the crushing, grinding, flotation and thickening processes which the Group employs at its concentrators.

In addition, Aktogay has continued its successful internship programme, which has now been completed by over 200 interns who have taken up full time employment at the site. The Group is proud to continue to enhance its links with the communities living, studying and working in its regions of operations.

Enhancing access to further education

KAZ Minerals is committed to improving educational opportunities for young people in the areas local to our operations, in line with the Group's social investment objectives over the long term. As a Group, we have supported a wide range of projects in the area of education, including investing in student scholarships, grants and internships, as well as providing funding to local universities and colleges for repairs and equipment.

In 2021, the Group funded a new project to provide accommodation for students whose homes are not in the vicinity of large educational establishments.

The majority of local universities and colleges are concentrated in regional towns and cities, which presents students from smaller towns and villages with a significant impediment to pursuing further education. The high cost and shortage of accommodation is prohibitive to many, and while some educational institutions in Kazakhstan provide halls of residence for their students, not all establishments can afford to provide sufficient accommodation for students during their studies.

As a result, KAZ Minerals enhanced its long-standing partnership with the Ayagoz Polytechnic College by constructing a dormitory with capacity for over 100 students.

The dormitory was completed in November 2021 and the first students were accepted in December. The dormitory also has the facilities required for students to learn, exercise and relax, including a fully equipped library, several study rooms and a gym.

Talgat Kaliyev, a student specialising in the maintenance of gas and electrical equipment says: "The dormitory is built with everything you need in the modern world and provides great opportunities for students like me. This is a great help and a warm home for us".



KAZ MINERALS STAKEHOLDERS CONTINUED

Pay and benefits

We aim to provide fair remuneration to our employees and to incentivise safety and productivity. The remuneration of operational employees and divisional managers comprises base pay plus a discretionary award linked to safety and health performance and production targets. Divisional manager remuneration also typically includes an element of discretionary bonus linked to corporate values, production efficiency and cost control. The Group takes measures to align wage increases with inflation in living costs, in particular for employees with lower salaries. All employees are paid above both the minimum wage and the living wage, as defined by the Government of Kazakhstan. We are pleased not to have been forced to make any reductions in staff headcount as a result of the Covid-19 pandemic.

In accordance with regulations in Kazakhstan and our employee agreements, we make payments to current and former employees for illness and disability sustained at the Group's operations.

Attracting and retaining skilled employees

Employee turnover is actively managed at each of the Group's operations and by the Human Resources team. The retention of skilled staff has been a key factor in the successful development of the Group's assets at Aktogay and Bozshakol, and in the wider Group's continued operational success. When employees leave the Group, exit interviews are conducted to collect feedback.

A Leadership Development Programme is in place to identify potential future leaders so that support in the form of training and mentoring can be offered. Potential successors are identified for key positions and individual development plans are created to support those identified. There are currently more than 190 individuals enrolled in individual development plans across Aktogay, Bozshakol and the East Region. Part of the annual assessment process for expatriate employees considers how well they have been mentoring, coaching and training their local successors. Progress towards promotion or continued development is reviewed quarterly and annually in year-end reviews.

Training and development

Professional development is one of the Group's five corporate values. KAZ Minerals is committed to ensuring that employees continue their professional development, with the aim of increasing productivity, efficiency and safety. The Group takes a long-term view of building capabilities and leadership qualities amongst its staff, which is viewed as critical to its growth strategy.

In 2021 employees each received an average of 55 hours of training (2020: 63 hours), which typically consisted of 35 hours of safety training, 16 hours of professional education and 4 hours of additional education. Operational training includes a significant safety and health component that is not recorded separately as safety and health training. Topics include the safe operation of machinery and vehicles, electrical and fire safety, labour protection training, physical fitness and professional development.

Openings doors to women in mining

According to research from McKinsey, women represent an estimated 8 to 17 per cent of the global mining workforce. KAZ Minerals benefits from a relatively high proportion (21%) of female employees in its workforce and is seeking to improve female representation further. One impediment is that there have historically been legislative restrictions in Kazakhstan to women taking on certain roles at mine sites, which until 2021 included driving mining vehicles.

KAZ Minerals has led a long-running campaign to remove the restrictions on female employment in the mining industry, and on 12 October 2021 the relevant amendments to the Kazakhstan Labour Code were introduced. Other than roles which require the manual lifting of heavy loads, women can now be employed in roles across the industry without any restrictions.

We believe this is a significant step forward in fulfilling our commitment to offer all employees equal opportunities, regardless of their gender. Following the amendments to the Labour Code, women will have the opportunity to choose their profession on an equal footing with men while being paid an equivalent salary, and the Group will benefit from a wider pool of potential employees.

Aktogay will advertise roles to women living locally to the site to become operators of mining vehicles and the KAZ Minerals Training and Development department has developed a programme of professional training for female drivers.

The first female trainee truck driver at KAZ Minerals, Natalya Khlebnikova, received her initial training on a Mercedes truck, before continuing her training on CAT dump trucks of increasing size, from the CAT 777 to the 793. These vehicles have load capacities of 70 to 200 tonnes.

"I chose to drive a mining truck as its strength and power fills me with awe. I love driving such a huge machine. I think women must, just like men, set and achieve their goals. Women have flown both rockets and aeroplanes, and have driven trains. We have mastered low-tonnage equipment; now it is time for heavy-duty mining equipment. I want to move forward so that the country can be proud of the achievements of women!" says Natalya Khlebnikova, Aktogay dump truck driver.



Diversity and equality

Our goals are to employ a skilled workforce that reflects the demographic of the countries in which we operate and to create a positive, supportive and inclusive culture. The Group has established procedures to ensure that there are no instances of discrimination on the basis of age, gender, race, nationality, ethnic origin, family situation, religion, language, political beliefs, sexual orientation, pregnancy, maternity, paternity or disability. Any reports of discrimination or harassment are investigated.

In line with the Group's corporate values, we seek to select, recruit and promote employees based on merit. We give equal access to training and career development opportunities appropriate for every employee's levels of experience and potential.

We aim to develop the expertise required for our operations for our existing workforce, recruiting locally where possible. The Leadership Development Programme focuses on the training and development of national employees to fill key positions in the future. Across the Group in 2021, 96% of permanent employees were nationals of our countries of operation.

In circumstances where specialist skills are required, we draw on international expertise with a view to transferring knowledge and experience in the medium to long term. The number of expatriates at the Group's operations is limited and they are largely employed at Aktogay and Bozshakol working alongside local teams who are expected to take over the full management of operations.

Gender equality

KAZ Minerals is committed to offering equality of opportunity to all current and potential future employees, regardless of gender. The Group has a relatively high female representation in its workforce when benchmarked against major mining companies, at 21% of total employees. This is reflected at the senior management level, where 26% of staff are female. The Group is working to increase the proportion of female employees at all levels and offers up to three years of maternity or paternity leave and re-induction training for employees returning from leave.

We regularly review salaries to check for equality of pay in equivalent roles to ensure that a gender pay gap does not emerge.



For more information on equality and diversity at KAZ Minerals, please visit www.kazminerals.com/sustainability/employees/equality-diversity/

Ethics, compliance, anti-bribery and corruption

Integrity is one of the Group's five corporate values. The Board is responsible for overseeing the Group's approach to ethics and compliance and is committed to maintaining the highest standards. The Group's Anti-Bribery and Corruption Compliance Programme has been developed in line with the requirements of the UK Bribery Act 2010 across all operations, with relevant clauses included as part of the Group's standard terms and conditions with suppliers since 2011. Please refer to the Governance Report for a description of the Group's policies and due diligence procedures undertaken in relation to anti-bribery and corruption.

The Group maintains an anonymous reporting facility ('Speak Up') to encourage employees to report any concerns regarding breaches of ethics. A risk assessment is used to identify the categories of employees requiring training in anti-bribery and corruption. This includes employees working in procurement, sales, finance and general management and individuals who interact with government or regulatory bodies.



For more details on our approach to ethics, compliance and anti-bribery and corruption, please visit www.kazminerals.com/sustainability/integrity-policies-compliance/ and www.kazminerals.com/about-us/governance/anti-bribery/

Suppliers

The Group's supply chain includes contractors and suppliers providing labour, energy, transport, smelting, equipment, consumables and raw materials required for the production and sale of copper and other by-products. In 2021, a total of 195 contracting firms worked at the Group's underground mines in the East Region and a further 265 firms were employed at the open pit mines at Aktogay and Bozshakol, together employing around 11,000 contractors' employees at our sites.

Suppliers' Charter

KAZ Minerals is committed to high standards of corporate social responsibility. To ensure that our suppliers understand the standards we require of them, we established the KAZ Minerals Suppliers' Charter.

The Suppliers' Charter sets out the Group's expectations in the areas of anti-bribery and corruption, employee wellbeing, environmental responsibility, community relations and human rights. Suppliers are encouraged to report all suspected or actual breaches of the principles set out in the Suppliers' Charter to KAZ Minerals management or by using the anonymous Speak Up system.

All suppliers are required to make a commitment to upholding the standards set out in the Suppliers' Charter as a condition of starting or continuing to work with KAZ Minerals. The Group also conducts a separate due diligence exercise on new suppliers to ensure that we only work with suppliers who meet our standards.



To view the Suppliers' Charter, please visit www.kazminerals.com/sustainability/integrity-policies-compliance/

Green procurement

The Group's environmental policy includes a commitment to reduce waste, prevent pollution and minimise the overall impact of the Group's activities on the environment. The Suppliers' Charter includes commitments from our suppliers to: (i) comply with local environmental protection regulations and implement the necessary actions to limit the impact of their activities on the environment; (ii) promote greater environmental responsibility and the use of goods and services which might help to mitigate our environmental impact, as well as better manage and utilise resources such as energy, paper, water and waste; and (iii) promote the development and distribution of environmentally friendly technologies.

KAZ MINERALS STAKEHOLDERS CONTINUED

Code of Fair Employment

The Group established a Code of Fair Employment which sets out the standards it expects to be upheld in relation to its own employees as well as the employees of suppliers or contractors to the Group. As part of the Suppliers' Charter, suppliers are also required to agree to the terms of the Code of Fair Employment.

The Code of Fair Employment can be viewed on the Group's website and contains commitments to prevent forced or involuntary labour; human trafficking, child and illegal labour and inhumane treatment. The retention of passports or identification documents, taking of deposits, restrictions on freedom of movement and the charging of recruitment fees to workers are forbidden. All employees must have contracts of employment, be paid above the legal minimum wage, be treated equally and have access to adequate grievance procedures. The Group is committed to the prevention of modern slavery and human trafficking in its supply chain and publishes an annual statement, approved by the Board, in accordance with the UK Modern Slavery Act 2015.

 To view the Code of Fair Employment, please visit www.kazminerals.com/sustainability/integrity-policies-compliance/

Supply chain monitoring


In 2021, training was provided to 3,027 individuals from procurement teams and to managers involved in the supervision of contractors. The aim of the training was to raise awareness of the standards contained within the Suppliers' Charter, in particular those relating to modern slavery and human trafficking. Staff are expected to monitor suppliers and contractors to prevent instances of modern slavery in the Group's supply chain and to report any suspected breaches of the Group's policies through the appropriate channels.

Modern Slavery Act 2015

The Board recognises the importance of the provisions of the Modern Slavery Act 2015 and the Directors aim to ensure that slavery and human trafficking have no part in the Group's supply chain. The Group has always been vigilant about employee welfare and aims to be transparent in its practices. The Group has established a Code of Fair Employment which sets out its stance in relation to forced or involuntary labour; human trafficking, child and illegal labour and inhumane treatment, and this can be found on the Group's website at www.kazminerals.com. The Human Resources department periodically conducts a Group-wide review to check internal compliance with the Code of Fair Employment and no instances of any breaches have been identified.

Risk assessments of the Group's major contractors and suppliers are carried out to identify those with a higher potential risk of modern slavery. General Directors at each of the Group's operations are required to confirm they have reported any conditions which could indicate modern slavery amongst contractors' staff working at KAZ Minerals' sites or confirm that no such conditions were observed. Relevant staff were trained during the year to raise awareness of modern slavery issues, with a particular focus on management and contractors working on our construction sites. Employees are encouraged to report any instance or suspected occurrence of modern slavery or human trafficking in the supply chain to management or through the Group's Speak Up reporting facility.

Our Suppliers' Charter sets out our expectations of our suppliers in relation to their treatment of their workers to ensure they are committed to employment practices which are acceptable to us. Under our standard terms of business our customers and suppliers agree to comply with the principles of the Code of Fair Employment and the Suppliers' Charter and to ensure there is no modern slavery within their operations.

 The Group published its most recent Modern Slavery Act statement in May 2021, which can be found on our website at www.kazminerals.com/about-us/governance/modern-slavery/

Sport facilities around Bozymchak

During 2021 KAZ Minerals Bozymchak constructed two football pitches in the villages of Kok-Serek and Kok-Tash, which are located near the mine.

Both villages are situated in relatively remote locations and previously had limited sports infrastructure. The football fields can also be used for volleyball or other sports and were constructed to provide a safe and convenient area for exercise and leisure for the community. The pitches can be used by all residents of the villages of the district. They have been built with artificial surfaces and a drainage system to enable them to be used for as much of the year as possible.

Both football and volleyball are extremely popular in the region, and the new facilities have enabled the residents of the villages to arrange competitions and tournaments between other village and district teams.

"The new facility has become a great gift for our residents. I want to emphasise that KAZ Minerals Bozymchak built a football pitch in one of the most inaccessible villages of the region. Now the local youth can safely play on their own sports pitches and do not have to travel to neighbouring villages as before, walking for several kilometres every time," Ilyas Rysdavletov, the head of the Kok-Tash village district, commented at the opening of the new sports facility.



Local communities in Chukotka

Since the acquisition of the Baimskaya copper project, KAZ Minerals has been engaging proactively with the indigenous peoples and communities in the Chukotka region. On 25 March 2021, the Group signed a memorandum with the Association of Indigenous Peoples of the Chukotka Autonomous Region, which outlines the basic principles of its engagement with local communities and has enabled the Group to develop a comprehensive phase-based plan for engagement with the indigenous peoples of the region which will cover healthcare, culture and education.

KAZ Minerals has undertaken several projects within the framework of this memorandum, including investment in the local healthcare system. Covid-19 antibody tests were provided to the Chukotka Regional Hospital, Bilibino District Hospital and Federal Medical and Biological Agency of Bilibino in order to help support the fight against the Covid-19 pandemic in the region.

KAZ Minerals has also provided support to local communities in order to maintain their traditional lifestyle and culture. Reindeer husbandry is an important part of the lifestyle of certain indigenous groups, and the Group has provided a system of radio communication to the Agricultural Enterprise Chaunskoye in order to improve the farmers' ability to work and communicate over large distances, and to improve security. A new refrigerated container was also provided to Agricultural Enterprise Ostrovnoye to store reindeer carcasses prior to delivery to customers during the summer periods. Historically, reindeer farmers stored their goods underground, where the frozen earth kept the products fresh, but the warming climate makes this a less reliable option today.

We have provided funding to a traditional musical group, the Yynettet Ensemble, to enable it to upgrade its creative equipment and support local traditional culture and have also provided support for the community more widely, ensuring that every child in Chukotka received a New Year gift in 2021. In addition, KAZ Minerals provided educational support, with school clothes and educational supplies required for the start of the school year in September distributed to low-income families in the village of Omolon.



Recognition of socio-economic contributions from Bozymchak

In 2021, the Government of Kazakhstan awarded Ilyas Tulekeev, General Director of KAZ Minerals Bozymchak, the Order of Kyrmet. Mukhtar Tleuberdi, the Deputy Prime Minister and Minister of Foreign Affairs of Kazakhstan, who presented the award in Nur-Sultan, praised Ilyas' contribution to strengthening cooperation between Kazakhstan and Kyrgyzstan, where Ilyas has been running our Bozymchak operations since 2011.

The Order of Kyrmet is a state award given to people who have made significant contributions to the development of business, economics, science, culture, education and public service in Kazakhstan.

"It is a huge honour to receive this award. I think this is recognition of the work of our entire team. Only together can we achieve such results and continue to strengthen the ties between Kazakhstan and Kyrgyzstan for many years," Ilyas said upon receiving the award.

KAZ Minerals Bozymchak has also been commended for its performance in recent national corporate awards. Bozymchak was rated as the fifth best company in the country by the National Statistics Committee in an assessment of nearly 22,000 companies, and received the accolade of best company from the state newspapers Kyrgyz Tuusu and Erkin Too.

Bakhpurbek Alenov, editor-in-chief of Erkin Too, presented Ilyas Tulekeev with a diploma and a commemorative medal and noted the significant contribution of KAZ Minerals to the socio-economic development of the country. This is the ninth year in a row that Bozymchak has received this award.

KAZ Minerals Bozymchak has been commended as a leader in the Krygyz mining industry and for its contribution to the state budget. In addition, Bozymchak was recognised for implementing various social projects each year which improve conditions for the economic development of remote mountainous regions.

Human rights

KAZ Minerals acknowledges that human rights are basic rights that form the foundation for freedom, justice and peace, which apply equally and universally in all countries. We are guided by our Human Rights Policy which has been approved by the Board and can be found on our website. KAZ Minerals supports human rights that are defined, recognised and identified in international conventions. We follow the international human rights principles encompassed in the Universal Declaration of Human Rights and adopt the United Nations Guiding Principles on Business and Human Rights. As set out in our Code of Fair Employment, we commit to our employees working in an environment and under conditions that respect their rights, and we require the same standards from our business partners. We respect the right to freedom of association and consult our employees and trade unions about proposed changes to our business and employment conditions. Through due diligence we aim to prevent and mitigate any infringement of human rights both internally and amongst our business partners. Due diligence undertaken in pursuance of the Group's Human Rights Policy includes consultation with local communities during project development, or any major operational changes that may affect them, and monitoring of working conditions for our own employees and the employees of contractors and suppliers, as described above. We respect and protect local heritage and culture.



To view the Group's Human Rights Policy, please visit www.kazminerals.com/sustainability/integrity-policies-compliance/

Communities

Consultation and communication

KAZ Minerals is committed to promoting community development and maintaining lines of communication with communities near its operations and potential new projects. The General Directors of the Group's operations have overall responsibility for community relations in their respective areas.

Indigenous peoples and resettlement

The Group's commitment to respecting the rights of indigenous peoples and its approach to resettlement are included in its Human Rights Policy, described on this page. The areas in which the Group has operated or developed new mining projects historically have been sparsely populated and the resettlement of indigenous populations has not been necessary. It is unlikely that future projects will require resettlement, but the Group will always seek to avoid involuntary resettlement and is committed to the protection of culturally sensitive areas.

Under the terms of subsoil use law in Kazakhstan, the Group is required to give preference to Kazakhstan nationals during the performance of subsoil use operations and to invest in the training of local workers.

Social projects and local procurement

KAZ Minerals is committed to supporting social projects in its countries of operation and in 2021 the Group invested \$44 million into such projects.

The Group has a social investment policy which sets out its aims and objectives. The types of projects the Group seeks to support are: (i) projects local to the Group's operations in the areas of healthcare, education, infrastructure, culture and sport; (ii) national projects in the Group's countries of operation also in the areas of healthcare, education, infrastructure, culture and sport; and (iii) projects to promote the culture and economic profile of the Group's countries of operation.

During 2021 the Group continued to provide funding for communities affected by Covid-19, supported the construction of a significant cultural centre in Nur-Sultan, as well as a number of medical projects including investment in the Kazakhstan healthcare system, by upgrading facilities, providing medical equipment and funding medical treatment for disadvantaged patients. The Group provided equipment to local technical colleges and provided support for educational costs and materials for promising students. In Kyrgyzstan the Group invested in improvements to facilities in villages close to the Bozymchak mine while in Russia the Group provided support to local communities as well as sending medical supplies to local hospitals.

The Group prioritises local procurement to assist diverse economic growth within Kazakhstan. In the East Region, local procurement was 67% of total spend (2020: 66%). The level of procurement from outside Kazakhstan at Aktogay and Bozshakol in 2021 was 77% and 74% respectively. This is because these mines employ modern technology that it is often only possible to source internationally.

GLOSSARY

\$ or US\$

United States dollar, the currency of the United States of America

Aktogay expansion project

the expansion project at Aktogay to increase sulphide processing capacity at the site

Baimskaya or Baimskaya copper project

the mining licence covering the Peschanka copper deposit, located in the Chukotka region of Russia

Bankable Feasibility Study

the feasibility study for the Baimskaya copper project

Board or Board of Directors

the Board of Directors of the Company

CIS

Commonwealth of Independent States, comprising former Soviet Republics

CO₂

carbon dioxide

Committee or Committees

any or all of the Audit; Health, Safety and Sustainability; Remuneration; Nomination; and Projects Assurance Committees depending on the context in which the reference is used

Company or KAZ Minerals

KAZ Minerals Limited, (formerly KAZ Minerals PLC prior to its re-registration as a private company limited by shares)

Directors

the Directors of the Company

General Directors

the heads of the Group's operations at Bozshakol, Aktogay, the East Region and Bozymchak

GHG

greenhouse gas

Group

KAZ Minerals Limited and its subsidiary companies

HSS

Health, Safety and Sustainability

ICMM

International Council on Mining and Metals

Kazakhstan

the Republic of Kazakhstan

kt

thousand metric tonnes

Kyrgyzstan

the Kyrgyz Republic

megalitre

thousand cubic metres

MET

mineral extraction tax

Mt

million metric tonnes

PJ

a standard unit of energy, work and heat equal to 10¹⁵ joules

Recordable Case

a Recordable Injury case or a Recordable Disease case

Recordable Disease

a new disease in the categories of occupational respiratory disorders, occupational hearing loss, musculoskeletal disorders, occupational cancers and other occupational medical disorders

Recordable Injury

a new occupational injury of sufficient severity that it requires medical treatment beyond first aid or results in the worker's inability to perform his or her routine function on the next calendar day

Russia

Russian Federation

Scope 1 emissions

direct greenhouse gas emissions from sources that are owned by the Group

Scope 2 emissions

indirect greenhouse gas emissions from consumption of purchased electricity, heat or steam

Speak Up

the Group's confidential whistleblowing arrangements

TCFD

Task Force on Climate-related Financial Disclosures

TJ

a standard unit of energy, work and heat equal to 10¹² joules

Total Recordable Cases Frequency Rate

the number of Recordable Cases occurring per million hours worked

TRI

Total Recordable Injuries

Total Recordable Injury Frequency Rate or TRIFR

the number of Recordable Injuries occurring per million hours worked

UK

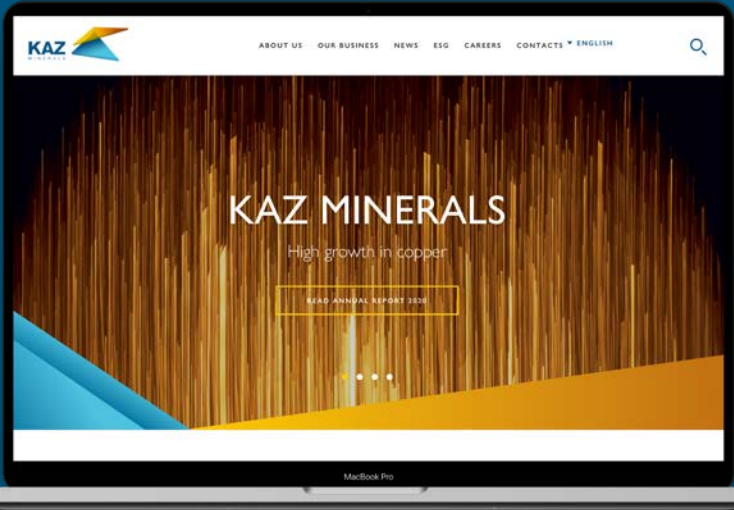
United Kingdom

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