Final

Independent Technical Report

Boguty Tungsten Project, Almaty Oblast, Republic of Kazakhstan
Jiaxin International Resources Investment Company Ltd

SRK Consulting (Hong Kong) Limited • JIA002 • 20 August 2025

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Useful Definitions

This list contains definitions of symbols, units, abbreviations, and terminology that may be unfamiliar to the reader.

%	per cent
°C	degrees Centigrade
µm	microns
2017 FS	Feasibility study on the Boguty tungsten mine, Kazakhstan based on 10,000 tpd mining capacity, dated December 2017
2019 FS	Feasibility study on the Boguty tungsten mining and engineering project, Kazakhstan with 15,000 tpd mining capacity (10,000 tpd in the first 2 years), dated August 2019
AIG	Australian Institute of Geoscientists
AK	Aral-Kegan LLP
ALS Chita	ALS Chita, Russia
ALS GZ	ALS Guangzhou, China
ANTAL	ANTAL Design Institute
APT	ammonium paratungstate
ARDML	acid rock drainage and metal leaching
ARO	Asset Retirement Obligation
ATV	acoustic televiewer
AusIMM	Australasian Institute of Mining and Metallurgy
BAT	best available technology
BD	Behre Dolbear Asia, Inc.
BD program	BD exploration program carried out in 2014-2015

BGRIMM	Beijing General Research Institute of Mining and Metallurgy Technology Group
CCECC	China Civil Engineering Construction Corporation
CGAR	compound annual growth rate
CRMs	certified reference materials
CY	calendar year
DMS	dense media separation
DTH	down-the-hole hammer
EGSU	Unified State System of Subsoil Use
EIA	environmental impact assessment
EITI	Extractive Industries Transparency Initiative
ENFI	China ENFI Engineering Co., Ltd
EOM	end-of-month
EPCM	Engineering, Procurement and Construction Management
F&S	Frost & Sullivan
FSU	former Soviet Union
FSU program	Former Soviet Union exploration program carried out in 1969-1974
GKZ	National Reserve Committee of Soviet Union
GNMRI	Ganzhou Nonferrous Metallurgy Research Institute
GPS-RTK	global positioning system-real time kinematic
GT PFS	Hydro-geotechnical Pre-feasibility study for Boguty Tungsten Project, dated August 2023
HKEx	Hong Kong Stock Exchange

Hollister	Beijing Hollister Technology Co., Ltd.
HPY	Ganzhou HPY Technology Co. Ltd.
HRI	Hunan Research Institute of Non-Ferrous Metals
HW	a liquid oleic acid collector
ICP-OES	inductively coupled plasma-optical emission spectroscopy
IFRS	International Financial Reporting Standards
Initial development	By 2026, the Project will complete initial development and have capacities of processing 3.3 Mtpa ore in Phase I and increase to 4.95 Mtpa ore in Phase II
Intertek	Intertek Beijing
IPO	initial public offering
ITR (Report)	Independent Technical Report
Jiaxin (Company)	Jiaxin International Resource Investment Company Ltd
JORC Code	2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves
JV	joint venture
k	thousand
km	kilometres
kt	kilotonnes
kV	kilovolts
kVar	kilovolt-amperes reactive
kW	kilowatts

kWh	kilowatt-hours
kWh/t	kilowatt-hours per ton
KZT	Kazakhstan Tengi
LMMEDI	Luoyang Mining and Mechanical Engineering Design Institute Co., Ltd.
LOI	loss on ignition
LOM	life-of-mine
LTP	long term price
m	metres
M	million
m/s	metres per second
m^3/d	cubic metres per day
m^3/h	cubic metres per hour
Ma	million years ago
MCOG	marginal cut-off grade
MENR	Ministry of Ecology and Natural Resources of the Republic of Kazakhstan
MET	Mineral Extraction Tax
MIC	Ministry of Industry and Construction of Kazakhstan
MID	Ministry of Investments and Development of Kazakhstan
mm	millimetres
Mm^3	million cubic metres
mRL	metres reduced level

Mt	million tonnes
Mtpa	million ton per annum
MW	megawatts
NEV	new energy vehicle
OK	Ordinary Kriging
OSA	overall slope angle
OTV	optical televiewer
PFS	pre-feasibility study
Preliminary Design	Preliminary design on the Boguty tungsten mining and engineering project, Kazakhstan with 15,000 tpd mining capacity (10,000 tpd in the first 2 years), dated June 2020
PV	photovoltaic
QAQC	quality assurance and quality control
QKNA	Quantitative Kriging Neighbourhood Analysis
Q-Q plot	quantile-quantile plot
RBF	radial basis function
RMB	Renminbi
ROM	run-of-mine
RPEEE	reasonable prospects for eventual economic extraction
SD	standard deviation
SGS	SGS Vostok Laboratory, Russia
SRK Group	SRK Global Limited
SRK	SRK Consulting (Hong Kong) Limited

t/m^3	tonnes per cubic meter
TCITR	Trans-Caspian International Transport Route
the Project	Boguty Tungsten Project
TMM	total material movement
tpd	ton per day
TSF	tailings storage facility
US$	United States dollar
UV	ultraviolet
V	volts
VALMIN Code	2015 edition of the *Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets*
VAT	value-added tax
VNIItsvetmet	Kazakhstan Eastern Mining and Metallurgical Research Institute for Non-ferrous Metals
W	tungsten
WC	tungsten carbide
Whittle	Lerchs-Grossman 3D routine in Whittle software
WO_3	tungsten trioxide
WRD	waste rock dump
Zhetisu	Zhetisu Volframy LLP

Term	Meaning
ammonium paratungstate (APT)	A white crystalline powder containing a high concentration of tungsten used as a feedstock for tungsten oxide
bulk density	Property of mineral components, defined by the weight of an object or material divided by its volume, including the volume of its pore spaces
certified reference material (CRM)	A standard material with known concentration of different elements inserted during laboratory analysis to determine the precision of assay results
cleaner	Collection of target mineral(s) from the rougher concentrate
collector	A reagent used in flotation to improve the hydrophobic ability and collect the desired mineral(s)
concentrate	Saleable products after processing
depressant	A reagent to increase the surface hydrophilicity of the desired materials and depressing their floating ability
drill core	A solid, cylindrical sample of rock produced by an annular drill bit, generally rotatively driven but sometimes cut by percussive methods (drill core is extracted from a drill hole)
drill hole	A hole drilled in the ground by a drill rig, usually for exploratory purposes to obtain geological information and to allow sampling of rock material
environment impact assessment (EIA)	A comprehensive analysis of the environmental consequences of a mining or construction project
exploration	Activities undertaken to prove the location, volume and quality of a deposit
fault	A fracture or fracture zone in rock along which movement has occurred
feed ore	Mined rock delivered to the processing plant

Term	Meaning
flotation	A processing method to selectively separating desired minerals from gangue minerals by applying different reagents by flotation
fold	A bend or flexure in a rock unit or series of rock units that has been caused by crustal movements
formation	A body of rock having a consistent set of characteristics (lithology) that distinguish it from adjacent bodies of rock
granite	An acidic intrusive rock with more than 63% SiO_2; source of hydrothermal fluids contributing to scheelite mineralisation at the Project
hauling	The drawing or conveying of the product of the mine from the working places to the bottom of the hoisting shaft, or slope
Indicated Resource	That part of a mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence
Inductively coupled plasma optical emission spectroscopy (ICP-OES)	An analytical technique used for the detection of chemical elements by various wavelengths of light
Inferred Resource	That part of a mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence, sampling and assumed but not verified geological and/or grade continuity
JORC Code	*Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves* prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC) in 2012

Term	Meaning
Measured Resource	Part of the Mineral Resource(s) for which quantity, grade (or quality), densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. A Measured Resource has a higher level of confidence than that applying to either an Indicated Resource or an Inferred Mineral Resource
Mineral Resource	A concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction'. Mineral Resources are classified as Measured, Indicated and Inferred according to the degree of geological confidence
Modifying Factors	Modifying Factors are considerations used to convert Mineral Resources to Ore Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors
Ore Reserve	The economically mineable part of a measured and/or indicated mineral resource(s), which include(s) diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at pre-feasibility or feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified
ore sorting	An ore pre-concentration method to reject waste from crushed ore before feeding to the extraction plant so as to improve the feed grade
overburden	A mixture of weathered rocks and soils generated during the mining process
payback period	The amount of time required to recoup the initial capital cost

Term	Meaning
pilot test	Processing test using a higher volume of ore sample and industrial equipment carried out for a longer run time
Probable Ore Reserve(s)	The economically mineable part of Indicated Resource(s) within the pit. The confidence in the Modifying Factors applying to a Probable Ore Reserve is lower than that applying to a Proved Ore Reserve
Proved Ore Reserve(s)	The economically mineable parts of the Measured Resources, which include diluting materials and allowances of losses. A Proved Ore Reserve implies a high degree of confidence in the Modifying Factors
quality assurance and quality control (QAQC)	Combination of methods and procedures used to measure the quality of the analytical results
regulator	A reagent used in flotation to control the acidity
rougher	Initial collection of target mineral(s) in the processing operation
Run-of-mine (ROM)	Ore being mined prior processing
scavenger	Minerals that are attached to the gangue minerals and could not be further processed; such minerals are pumped away to a previous stage for re-processing or treated as tailings
scheelite	Principal ore mineral of the Project with chemical formula of $CaO{\cdot}WO_3$ exhibiting fluorescent under ultraviolet light
sedimentary rock	A rock formed from the accumulation and consolidation of sediment, usually in layered deposits and which may consist of rock fragments of various sizes, remains or products of animals or plants, products of chemical action or of evaporation, or mixtures of these
shale	A fine-grained sedimentary rock, formed from mud that is a mix of clay and silt

Term	Meaning
siltstone	A fine- to medium-grained sedimentary rock that is composed mostly of silt
specific gravity	The ratio of material's mass to the mass of an equal volume of water
strike	Direction of line formed by intersection of a rock surface with a horizontal plane. Strike is always perpendicular to direction of dip
stripping ratio	The ratio between the volume of waste material required to be handled in order to extract ore
swath plot	A swath plot shows the average grade for the blocks in the swath, along with the average sample values in the swath. Swath plots are a common validation tool for providing comparisons between sample points and estimated values to identify any potential bias
Table 1, the JORC Code	A checklist during the preparation of this Report; any comments are provided on an 'if not, why not' basis to ensure clarity to an investor on whether aspects of the future development program have been considered as they apply to the JORC Code (2012) Table 1
tailings	Rejects produced after processing may pumped back to a previous stage for re-processing
tungsten	An element with the symbol W and atomic number 74; target element of the Project
tungsten carbide powder (WC)	Main raw material in the manufacturing of cemented carbide
tungsten trioxide (WO_3)	A chemical compound of tungsten and oxygen with formula WO_3 that may be found in the minerals wolframite, scheelite and tungstite
Ulkenboguta Formation	A sedimentary rock unit deposited in the Ordovician; mineralised quartz stockworks and veinlets are hosted in this unit

Term	Meaning
vein	Sheet-like body of minerals formed by fracture filling or replacement of lost rock
waste	The part of an ore deposit that is too low in grade to be of economic value at the time of mining, but which may be stored separately for possible treatment later
wireframe	A skeletal three-dimensional model in which only lines and vertices are represented, a preliminary stage used in preparing a full three-dimensional model
return water	Water used in processing and recycled back to the processing circuit

EXECUTIVE SUMMARY

SRK Consulting (Hong Kong) Limited (SRK) is an associate company of the international group holding company, SRK Global Limited (the SRK Group). SRK was commissioned by Jiaxin International Resources Investment Company Ltd (Jiaxin, hereinafter also referred to as the Company) to prepare an Independent Technical Report (ITR, or the Report) on the Boguty Tungsten Project located in Kazakhstan (the Project).

SRK understands that this ITR will be included in a prospectus relating to an initial public offering (IPO) of shares in the Company and associated capital raising on the Hong Kong Stock Exchange (HKEx). SRK's ITR is to be prepared in accordance with the HKEx Listing Rules.

Scope of work

The scope of work includes a review and reporting on the following technical disciplines:

- Geology and Mineral Resources
- Mining and Ore Reserves
- Mineral processing
- Tailings
- Infrastructure
- Environmental and social
- Capital and operating costs.

A risk assessment has also been included.

Reporting standards

The authors of this Report are either Members or Fellows of either the Australasian Institute of Mining and Metallurgy (AusIMM) and/or the Australian Institute of Geoscientists (AIG) and therefore are bound by both the VALMIN Code and JORC Code. For the avoidance of doubt, this Report has been prepared according to:

- the 2015 edition of the *Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets* (VALMIN Code)
- the 2012 edition of the *Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves* (JORC Code).

Work program

SRK's work program included a review of the provided information, site visits by SRK personnel at various intervals between 2018, 2024 and 2025, estimation of the Mineral Resource and Ore Reserve, and preparation of this Report.

History and development

The Boguty tungsten deposit was discovered in 1941 and prospected by various parties until 1969. From 1969 to 1974, the Geological Survey of South Kazakhstan, a former Soviet Union (FSU) organization, conducted systematic exploration, including diamond drilling, trenching and extensive underground development (hereafter the FSU program). From 2014 to 2015, Behre Dolbear Asia, Inc. (BD) was commissioned by Jiaxin to conduct a validation program to verify the previous exploration results (hereafter known as the BD program).

In November 2015, Jiaxin acquired indirect control over Zhetisu Volframy LLP (Zhetisu), the entity holding the mining rights to the Project, through the acquisition of Aral-Kegen LLP (AK).

Between 2015 and 2019, several technical and techno-economic studies including feasibility studies, metallurgical testwork and ore sorting testwork were undertaken by various Chinese research institutes. In June 2020, a preliminary design (the Preliminary Design) was jointly completed by China ENFI Engineering Co., Ltd (ENFI) and the Kazakhstan Eastern Mining and Metallurgical Research Institute for Non-ferrous Metals (VNIItsvetmet), an affiliate of the National Center for Complex Processing of Mineral Raw Materials of the Republic of Kazakhstan.

The Preliminary Design encompassed the design and evaluation of mining, processing and auxiliary facilities at the Project. VNIItsvetmet and ANTAL Design Institute (ANTAL) were responsible for the design and evaluation of power and water supply, tailing storage facility (TSF) and various environmental impact assessments (EIAs) for the Project.

In May 2021, full-scale construction of the Project commenced, with China Civil Engineering Construction Corporation (CCECC) appointed as the primary contractor.

In September 2023, a significant milestone was achieved with the completion of pre-stripping, preparing the site for the start of commercial mining operations.

By July 2024, construction of the processing plant complex was completed, equipment was installed and set-up of facilities were largely was largely completed, initial testing of the processing plant equipment began and the 22 km-long water pipeline, supplying water to the mine, was completed.

In late October 2024, high-voltage power lines were completed, connecting the Project to the 30 MW power grid, and commercial mining operations officially commenced.

In November 2024, trial processing commenced.

In November 2024, the TSF was put into operation.

The installation of the processing plant and auxiliary equipment as well as access to water and the main grid power and subsequent testing were completed by the second half of CY2024.

The trial production phase, which allows for the testing and fine-tuning of the processing operation, commenced in November 2024. The construction and testing of the boiler heating system for the processing plant was completed in February 2025.

Commercial production commenced in April 2025, and the plant is expected to enter the Phase I production phase, targeting an annual throughput of 3.3 Mt of ore.

Commissioning targets

In the second half of CY2026, the target processing throughput will increase as the ore sorting system is integrated into the current flowsheet.

From the first quarter of CY2027, the plant will enter the Phase II commercial production phase, aiming to achieve a target annual throughput of 4.95 Mt of ore.

Mining rights

The mining rights of the Project are covered by Subsoil Use Contract No. 4608-TPI and three subsequent addenda. The current owner of the Subsoil Use Contract is Zhetisu Volframy LLP (Zhetisu), which is held by Jiaxin's subsidiaries.

The mining rights cover an area of 1.16 km^2 and permit the exploitation of the resource up to a maximum depth of 300 m below the surface. The mining rights were issued by the Ministry of Investments and Development of Kazakhstan (MID) (a predecessor of the Ministry of Industry and Construction of Kazakhstan, MIC). The licence is valid from 2 June 2015 to 2 June 2040, a period of 25 years.

Geology and Mineral Resources

The Project area is located in the southern part of the Boguty Syncline, a regionally significant fold structure which was formed during the Late Ordovician. The core of this fold consists of sandstone, siltstone and shale units belonging to the Middle and Upper Members of the Ordovician Ulkenboguta Formation while the fold limbs host Upper Palaeozoic volcanic rocks. The Boguty Syncline has been cut by a granitic body that was emplaced along a series of north-trending faults. Tungsten-bearing hydrothermal fluids associated with this granitic intrusion resulted in the development of quartz-scheelite veins within the siltstone and sandstone units of the Ulkenboguta Formation. These quartz-scheelite veins range in length from a few centimetres to tens of centimetres and occur as stockworks and veinlets. These centimeter-scale veins commonly occur as conjugate sets, cutting through the sediments. Disseminated scheelite veins/blebs also occur in the surrounding host sediments.

The known mineralisation extends over a length of approximately 2,000 m in a northeast direction and has a lateral extent of 400 m towards the east. It dips subvertically to the northwest, having been tested to a maximum depth of 500 m below the surface. The number of quartz veins and association mineralisation appear to diminish when mineralisation extends into the younger shale sequence and finer-grained, siliceous sediments of the Upper Member of the Ulkenboguta Formation.

The primary ore mineral is scheelite (chemical formula: $CaWO_4$), accompanied by wolframite ($[Fe, Mn]WO_4$) and tungstite ($WO_3 \cdot H_2O$). Scheelite occurs as small grains within quartz. The distribution and occurrence of scheelite mineralisation exhibit highly irregular patterns. Scheelite is predominantly observed as minute grains enclosed within quartz and brecciated quartz fragments. Other minerals, including pyrite (FeS_2), haematite (Fe_2O_3), chalcopyrite ($CuFeS_2$), spherite (Zn, Fe]S), molybdenum (Mo) and galena (PbS) are also occasionally present.

The Project area has been explored by various parties since the discovery of potentially economic quantities of tungsten mineralisation in 1941. During the period between 1969 and 1974, the FSU completed an extensive exploration program including geological mapping, approximately 12,177 m of surface drilling, 7,440 m of underground drilling, excavation of 30,690 m^3 of surface trenches and collection of 19,943 m of surface channel samples. Three levels of adits, measuring a total of 12,987 m, were also developed. A total of 17,576 m channel samples from the adit walls were subsequently collected. Geotechnical, hydrological and metallurgical studies were also conducted.

In 2014-2015, Jiaxin commissioned BD to undertake a verification program (known as the BD program) to verify the results of the earlier FSU program. In 2018, SRK inspected the exploration work conducted by the BD and FSU programs.

In 2022, SRK further undertook an independent verification program on the samples collected during the BD program. The independent check assay program completed by SRK demonstrated a very good reproducibility compared to the BD results. However, a comparison of the FSU and BD datasets shows an apparent systematic positive bias in the FSU results. The FSU data have therefore been adjusted through a regression formula. Based on the adjusted and verified datasets, SRK completed geological modeling and prepared a Mineral Resource estimate.

The tungsten Mineral Resource for the Project, constrained by the mining licence and the latest topography as at 30 June 2025 and reported in accordance with the JORC Code (2012), is presented in Table ES.1.

Table ES.1: Mineral Resource Statement — Boguty Project — as at 30 June 2025

Classification	Tonnage (Mt)	Grade (WO_3 %)	Contained WO_3 (kt)
Indicated	95.6	0.209	200.3
Inferred	11.9	0.228	27.0
Total	**107.5**	**0.211**	**227.3**

Source: SRK

Notes:

1. The Mineral Resource estimate is effective as at 30 June 2025.
2. A cut-off grade of 0.05% WO_3 was applied to the Mineral Resource block model.
3. The Mineral Resources are reported with reasonable prospects for eventual economic extraction, using an RMB143,000/t tungsten concentrate price (65% WO_3) within an optimized pit shell outline.
4. Mineral Resources that are not Ore Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
5. Mineral Resources are reported inclusive of Ore Reserves.
6. The Mineral Resource has been constrained by the latest topographic survey as of 30 June 2025.

Mining and Ore Reserve

The Project is designed as an open pit mine, consisting of conventional drill, blast, load and haul, with a planned ore feed of 4.95 Mtpa ore. The selected open pit mining method is conventional and is considered as an appropriate and low-risk solution. Pre-stripping, was completed by September 2023 and mining commenced in November 2024.

For Ore Reserve and mine planning purposes, SRK conducted an optimization using the Lerchs-Grossman 3D algorithm in Whittle software. SRK considers this analysis, which was based on SRK's Mineral Resource estimate, the recently completed geotechnical study and the Modifying Factors outlined in the Preliminary Design, to be equivalent to a pre-feasibility study (PFS).

Based on the optimization results and a detailed mine design, a mining schedule has been prepared. The mining schedule has taken the progress of the processing plant construction and the targeted throughput into account. The Project is estimated to have a life-of-mine (LOM) of 15 years, with an average grade of 0.206% WO_3 and an LOM stripping ratio of 1.53.

The proposed contractor mining fleet is reasonable for the envisaged 12.45 Mtpa total material movement (TMM) mining capacity. However, the TMM capacity would be approximately 3-48% over the proposed 12.45 Mtpa for 7 years, due to the stable schedule targeting the plant feed. SRK has assumed mobilising of additional equipment via outsourcing to accommodate the increased capacity will be done.

Applying the Modifying Factors, SRK estimated the Ore Reserve for the Project in accordance with the JORC Code (2012). The Ore Reserve Statement is presented in Table ES.2. The economically mineable portions of the Indicated Mineral Resource within the open pit design and the current mining licence scope, including diluting materials and allowances for losses, were classified as Probable Ore Reserves. The feed ore is estimated as at the primary crusher or run-of-mine (ROM) stockpile at the processing plant.

Table ES.2: Ore Reserve Statement — Boguty Project — as at 30 June 2025

Category	Ore Reserve	WO_3 Grade	Contained WO_3
	(Mt)	*(%)*	*(kt)*
Probable	68.4	0.206	140.8

Source: SRK

Notes:

1 The Ore Reserve estimate is effective as at 30 June 2025.

2 A marginal cut-off grade (MCOG) of 0.06% WO_3 was used to define ore and waste.

3 The pit optimization and the estimation of MCOG are based on a forecast price of 110,000 RMB per ton for 65% WO_3 concentrate.

4 The Ore Reserves are reported in metric dry tonnes.

5 The Ore Reserves are reported at the reference point of the ROM stockpile before crushing.

6 The Ore Reserves are reported inclusive of Mineral Resources.

7 All materials extracted since the initial Ore Reserve estimate declared in December 2023 have been depleted from the Ore Reserve.

Mineral processing

The primary ore minerals include scheelite with traces of wolframite and tungstite. Scheelite occurrences are coarse grained, with 94% of grains larger than 0.074 mm.

The proposed processing plant follows a two-stage crushing-ore sorting-tertiary crushing-grinding circuit, along with a flotation concentrator using a single-stage rougher, three-stage scavenger and three-stage cleaner process. The final product is expected to comprise a scheelite concentrate containing 65% WO_3.

The processing plant will be developed in two phases. Phase I aims for a target throughput of 3.3 Mtpa or 10,000 tpd, while Phase II will increase the targeted throughput rate to 4.95 Mtpa or 15,000 tpd. The scheduled increase to the annual target throughput rate is shown in Table ES.3.

Table ES.3: Targeted throughput rate

H2 2025	2026	2027 onwards
1.65 Mt	3.80 Mt	4.95 Mt

Source: Jiaxin

Note: H2: Second half of the calendar year

In Phase I, the expected tungsten recovery to tungsten concentrate is 83% (75% in H2 2025), assuming production of a 65% WO_3 concentrate. After Phase I enters production, an industrial-scale ore sorting test will be conducted. In Phase II, the ore sorting circuit will pre-concentrate the crushed ore from 15,000 tpd to 10,000 tpd at a 33.33% rate of rejection. The overall tungsten recovery to tungsten concentrate is forecast at 78.85%. The inclusion of the ore sorting circuit will enhance the grade before grinding, which will significantly reduce the unit cost of grinding, improving the Project's overall economic returns.

The processing plant was designed and constructed to high quality standards. Other than the ore sorting system, the plant construction and equipment installation has been completed. Trial production begun in November 2024. Commercial production commenced in April 2025, progressively establishing the entire mineral processing flow. Continuous full-process operation was achieved in the second quarter of 2025, during which process conditions were optimized, leading to gradual improvements in throughput, concentrate grade and recovery rates.

Infrastructure

The key infrastructure supporting the Project includes access roads, power and water supplies, and an accommodation camp. The Project is conveniently accessible by vehicles from Kazakhstan's national capital, Almaty, as well as the Khorgos Kazakhstan-China borders via the A2 highway. The main mine access road branches from the A2 highway and is paved with graded sands and gravels. The entrance is fenced and there is a security checkpoint.

The Shelek Central Substation is a regional power station (120 MW capacity) and is located 119 km from the Project. A 110 kV overhead transmission line distributes power from the Shelek Central Substation to the Chundzha Substation, which runs south of the Project region. Jiaxin has obtained permission from the local power bureau to connect and supply power to the Project by installing a new 7 km-long overhead line branching from the existing 110 kV transmission line. The entire system is connected to the 30 MW power grid.

The Company has also obtained the relevant permissions to withdraw freshwater from the nearby Charyn River, located approximately 22 km southeast of the Project area. The freshwater can be directly used for industrial purposes and is sterilised for domestic use. Two external pumping stations and four internal high-level water tanks have been built, and all pumping equipment was installed and tested. All pipelines were installed and trenches were backfilled in the first quarter of 2024. Since July 2024, water has been successfully supplied to the mine through the 22 km-long water pipe.

A temporary accommodation camp, consisting of single-storey steel modular buildings and cement buildings, is located in the low-lying area between the TSF and processing plant. Despite being temporary, the buildings have been constructed to high standards and are well equipped. A permanent accommodation camp is currently being constructed approximately 600 m south of the open pit. The supporting construction for this permanent camp involves cutting a hill and erecting six three-storey buildings. The earthworks for the permanent camp began in June 2023, and the construction is expected to be completed within 2 years following the production commission. SRK considers that the infrastructure supporting all mining and processing operations is suitable and appropriate. The connected power and water supplies are sufficient to support the proposed operations.

Tailings storage facility

The TSF is to be located on a gentle slope approximately 3 km southwest of the processing plant. It features an open layout and is categorised as a hillside storage facility. Three embankments are constructed against the hillside (Figure 3.2). The TSF covers an area of approximately 3.5 km^2. The embankment elevation ranges from 1,116 m to 1,1157 m. The designed total storage capacity of 39.2 Mm^3 is sufficient to provide tailings storage capacity over the LOM.

The TSF will be constructed in three phases in accordance with the design (ANTAL, 2020). The embankment built in Phase 1 (1,143 m) will be lifted progressively in Phase 2 (1,152 m) and Phase 3 (1,157 m) to accommodate storage requirements. A volumetric assessment by SRK has confirmed the design storage capacity.

In November 2024, the TSF was put into operation.

Capital and operating costs

The capital cost of the Project has been incurred since 2020. From CY2020 to H1 CY2025, a total of RMB1,712.0 million was incurred. Budgeted amounts for H2 CY2025 and CY2026 are RMB315.5 million and RMB309.3 million, respectively. The total incurred and forecast capital cost for the initial development of the Project amounts to RMB2,236.3 million. Upon completion of initial development by 2026, the Project will have a processing capacity of 3.3 Mtpa ore in Phase I, increasing to 4.95 Mtpa in Phase II. TSF raising is planned for Phase 2 and Phase 3 in 2026 and 2034, respectively, at a total cost of RMB482.9 million.

The total cost for the initial development and subsequent raising of the TSF amounts to RMB2,719.3 million. In SRK's opinion, the capital cost forecast is appropriate to support the remaining initial development and the Phase 2 and Phase 3 TSF construction. The capital unit cost over the LOM is estimated to be 40 RMB/t ore or 15,900 RMB/t concentrate.

In H2 CY2025, the projected total operating cash cost is RMB331.0 million, with a unit cash cost of 200 RMB/t ore and 91,000 RMB/t concentrate. By CY2027, as the Project reaches its target production rate of 4.95 Mtpa and the ore sorting system for the Phase II development is installed, the total operating cash cost is expected to increase to RMB606.1 million, but the operating cash unit cost is projected to decrease significantly to 122 RMB/t ore and 44,400 RMB/t concentrate.

Environmental and social aspects

SRK has not identified any significant environmental or social risks that are likely to disrupt the proposed mining and processing activities. The critical environmental permits have been obtained. The Subsoil Use Contract was signed in 2015 and outlined the key environmental and social conditions the Company must adhere to. Environmental impact assessments (EIAs) for the open pit, processing plant and TSF were completed in accordance with local legislation and were approved by the appropriate authorities in 2020 and 2021, respectively.

The operation has also received land use approvals. Several air pollution and waste disposal unit permits have also been granted as environmental and special water use permits. The production water use permit was issued on 10 December 2024, granting the Company permission to extract a specified amount of water from the Charyn River.

A closure plan for the mining area was developed in 2019 and updated in 2022. A closure plan for the processing plant and TSF to reflect the current liabilities of the Company was developed to meet the requirements for Asset Retirement Obligation (ARO). This plan can be used to create a detailed closure plan that accurately reflects the closing liabilities at the end of the LOM.

1 INTRODUCTION

1.1 Background

SRK Consulting (Hong Kong) Limited (SRK) is an associate company of the international group holding company, SRK Global Limited (the SRK Group). SRK has been engaged by Jiaxin International Resources Investment Company Ltd (Jiaxin, hereinafter also referred to as the Company) to prepare an Independent Technical Report (ITR, or the Report) on the Boguty Tungsten Project located in Kazakhstan (the Project) in accordance with the Hong Kong Stock Exchange (HKEx) Listing Rules. SRK has been informed that the ITR will be included in a prospectus relating to an initial public offering (IPO) of shares in the Company and associated capital raising on the Hong Kong Stock Exchange (HKEx).

The Project is located in the southeastern part of Kazakhstan, approximately 180 km east of Almaty and 160 km west of the Chinese border (Figure 1.1). The construction of the Project is largely completed. Trial production commenced in November CY2024. The Project commenced commercial production in April 2025, with a target annual throughput of 3.3 Mt. In the first quarter of CY2027, the Project will transition to Phase II commercial production with the incorporation of an ore sorting system. The target annual throughput will increase to 4.95 Mt.

Figure 1.1: Location map of the Project

Source: ESRI

1.2 Scope of work

SRK's scope of work included a review of the following technical disciplines:

- Geology and Mineral Resources
- Mining and Ore Reserves
- Mineral processing
- Tailings
- Infrastructure
- Environmental and social
- Capital and operating costs.

A risk assessment has also been included.

1.3 Reporting standard

The authors of this Report are Members or Fellows of either the Australasian Institute of Mining and Metallurgy (AusIMM) and/or the Australian Institute of Geoscientists (AIG) and therefore are bound by both the VALMIN Code and JORC Code. For the avoidance of doubt, this report has been prepared according to:

- the 2015 edition of the *Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets* (VALMIN Code)
- the 2012 edition of the *Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves* (JORC Code).

In accordance with the stated reporting guidelines, all geological and other relevant factors defining the Company's Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves have been considered in sufficient detail to serve as a guide for future exploration and development. Table 1 of the JORC Code has been used as a checklist during the preparation of this Report and any comments are provided on an 'if not, why not' basis to ensure clarity to an investor on whether aspects of the future development program have been considered as they apply to the JORC Code (2012) Table 1.

The criteria of the JORC Code Table 1 reflect the normal systematic approach to exploration and target evaluation. Relevance and Materiality are overriding principles which determine the information that needs to be publicly reported. This Report has attempted to provide sufficient comment on all matters that might materially affect a reader's understanding or interpretation of the results being reported. The criteria under which the Project is being evaluated are consistent with the current understanding of the geological controls on the known mineralisation, but as more knowledge is gained these criteria could change and be improved upon over time.

As per the VALMIN Code (2015), a draft of the Report was supplied to Jiaxin to check for material error, factual accuracy and omissions before the final version of the Report was issued.

1.4 Work program

SRK's work program completed under this commission included:

- review of supplied information
- site visits by SRK consultants at various intervals between 2018, 2024 and 2025
- estimation of Mineral Resources and Ore Reserves
- preparation of this Report.

1.5 Effective date

The effective date of the Report is 30 June 2025.

As informed by the Company, as at the Publication Date of this Report, there has been no material change to the status of the Project since the Effective Date. This includes no material change to the stated Mineral Resources and Ore Reserves at the Project as outlined in this Report.

1.6 Project team

This Report has been prepared by a team of SRK consultants from the Hong Kong, Almaty (Kazakhstan), Beijing (China), Brisbane (Australia) and Cardiff (UK) offices. The qualifications and experience of the consultants and associates who carried out the work in this Report are listed in Table 1.1. They have extensive experience in the mining industry and are members in good standing of appropriate professional institutions.

Table 1.1: Details of the qualifications and experience of the project team

Specialist	Position/SRK office	Responsibility	Site inspection	Professional designation
(Gavin) Heung Ngai Chan. . . .	Principal Consultant/ Hong Kong	Competent Person for Mineral Resource estimate and responsibility for the overall ITR	24-26 July 2018; 27-28 September 2022; 28-29 June 2025	BSc, MPhil, PhD (Earth Sciences), GradDip (AppFin), GradCert (Geostats), FAIG
Alexander Thin . .	Principal Consultant/ Beijing	Mining and Ore Reserve Reserve estimate	22 November 2022	BEng, GDE, FAusIMM(CP), FIM3 (CEng), FSAIMM, RPEQ
Falong Hu	Principal Consultant/ Beijing	Mining and Ore Reserves, Competent Person for the Ore Reserve estimate	4 August 2025	BEng, FAusIMM
Lanliang Niu . . .	Principal Consultant/ Beijing	Mineral Processing	10 August 2023	BEng, MAusIMM
Colin Wessels . . .	Principal Consultant/ Almaty	Tailings	22 November 2022; 18 September 2023	BSc, Pr.Sci.Nat., SACNASP, SAIEG
Nikolai Kirillov . .	Senior Consultant/ Almaty	Environmental and Social	22 November 2022; 10 August 2023	BSc
Nargiza Ospanova	Consultant/Almaty	Environmental and Social	10 August 2023; 20 November 2023	BSc, MSc
Fong Cheuk	Consultant/ Hong Kong	Geology and Mineral Resources	22 November 2022; 10 August 2023	BSc, MAIG
(Tony) Shuangli Tang	Senior Consultant/ Hong Kong	Geology and Mineral Resources	21-22 July 2024 6-7 March 2025	BSc, PhD, MAIG
Robin Simpson . .	Principal Consultant/ Almaty	Peer Review — Geology and Mineral Resources	No site visit	BSc (Hons), MSc, MAIG
Jane Joughin. . . .	Corporate Consultant/ Cardiff	Peer Review — Environmental and Social	No site visit	MSc, CEnv, MIEMA, Pr.Sci.Nat.
Jeames McKibben	Principal Consultant/ Brisbane	Peer Review — Overall Report	No site visit	BSc, MBA, MRICS, FAusIMM(CP), SME

Source: SRK

1.7 Limitations, reliance on information, declaration and consents

1.7.1 Limitations

SRK's opinion contained herein is based on information provided to SRK by Jiaxin throughout the course of SRK's investigations as described in this Report, which in turn reflects various technical and economic conditions at the time of writing. Such technical information as provided by Jiaxin was taken in good faith by SRK.

This Report includes technical information, which requires subsequent calculations to derive subtotals, totals, averages and weighted averages. Such calculations may involve a degree of rounding. SRK does not consider such rounding to be material when it occurs.

As far as SRK has been able to ascertain, the information provided by Jiaxin was complete and not incorrect, misleading or irrelevant in any material aspect. Jiaxin has confirmed in writing to SRK that full disclosure has been made of all material information and that, to the best of its knowledge and understanding, the information provided by Jiaxin was complete, accurate and true and not incorrect, misleading or irrelevant in any material aspect. SRK has no reason to believe that any material facts have been withheld.

1.7.2 Legal matters

SRK has not been engaged to comment on any legal matters. SRK notes that it is not qualified to make legal representations as to the ownership and legal standing of the mineral tenements that are the subject of this Report. SRK has not attempted to confirm the legal status of the mineral titles, joint venture (JV) agreements, local heritage or potential environmental or land access restrictions.

1.7.3 Reliance on other experts

SRK has not performed an independent verification of the mining rights and/or land titles, nor the legality of any underlying agreements that may exist concerning the permits, commercial agreements with third parties or sales contracts and instead has relied on information as provided to SRK by Jiaxin's independent legal advisers.

The commodity price and inflation forecasts used in this Report for economic evaluation purposes are provided by the Jiaxin's industry expert, Frost & Sullivan (F&S), an independent market research and consulting company.

1.7.4 Source of information

This Report is based on information made available to SRK by Jiaxin and its consultants and contractors and on information collected during the site visits. The key information includes the Preliminary Design jointly completed by ENFI, VNIItsvetmet as well as the design and evaluation of power and water supply, tailings storage facility (TSF) and various environmental impact assessments (EIAs) for the Project completed by VNIItsvetmet and ANTAL.

1.7.5 Warranties

Jiaxin has represented in writing to SRK that full disclosure has been made of all material information and that, to the best of its knowledge and understanding, such information is complete, accurate and true.

1.7.6 Indemnities

As recommended by the VALMIN Code (2015), Jiaxin has provided SRK with an indemnity under which SRK is to be compensated for any liability and/or any additional work or expenditure resulting from any additional work required:

- which results from SRK's reliance on information provided by Jiaxin or Jiaxin not providing material information; or
- which relates to any consequential extension workload through queries, questions or public hearings arising from this Report.

1.7.7 Consent

SRK consents to this Report being included, in full, in Jiaxin's HKEx listing documents in the form and context in which it is provided and not for any other purpose. SRK provides this consent on the basis that the findings expressed in the Executive Summary and in the individual sections of this Report is considered with, and not independently of, the information set out in the complete Report.

Practitioner Consent

The Competent Person who has overall responsibility for this Report and Mineral Resource is Dr (Gavin) Heung Ngai Chan. He is a Fellow of the Australasian Institute of Geoscientists (AIG) and a full-time employee of SRK Consulting (Hong Kong) Limited. Dr Chan has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined under the 2012 edition of the JORC Code. (Gavin) Heung Ngai Chan consents to the inclusion in the Report of the Mineral Resources in the form and context in which they appear.

The information in this Report that relates to Ore Reserves is based on information compiled by Falong Hu, who is a Fellow of the Australasian Institute of Mining and Metallugry (AusIMM). He is a full-time employee of SRK Consulting (China) Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined under the 2012 edition of the JORC Code. Falong Hu consents to the inclusion in the Report of Ore Reserves in the form and context in which they appear.

HKEx requirements

Dr (Gavin) Heung Ngai Chan meets the requirements of Competent Person, as set out in Chapter 18 of the Stock Exchange Listing Rules. Dr Chan is a Fellow of good standing of AIG; has more than five years' experience relevant to the style of mineralisation and type of deposit under consideration; is independent of the issuer applying all the tests in sections 18.21 and 18.22 of the Listing Rules; does not have any economic or beneficial interest (present or contingent) in any of the reported assets; has not received a fee dependent on the findings of this ITR; is not officer, employee of a proposed officer for the issuer or any group, holding or associated company of the issuer; and takes overall responsibility for the ITR.

1.7.8 Corporate capability

SRK is an independent, international group providing specialised consultancy services. Among SRK's clients are many of the world's mining companies, exploration companies, financial institutions, engineering, procurement and construction management (EPCM) and construction firms, and government bodies.

Formed in Johannesburg in 1974, the SRK Group now employs some 1,700 staff internationally in over 40 permanent offices in 20 countries on 6 continents. A broad range of internationally recognized associate consultants complements the core staff.

The SRK Group's independence is ensured by the fact that it is strictly a consultancy organization, with ownership by staff. SRK does not hold equity in any projects or companies. This permits SRK's consultants to provide clients with conflict-free and objective support on crucial issues.

1.7.9 Stock exchange public report

SRK has prepared many public reports for the HKEx. Selected examples are listed in Table 1.2.

Table 1.2: Public reports prepared by SRK for disclosure on the HKEx

Company	Year	Project Nature
Chifeng Jilong Gold Mining	2025	Listing on HKEx
Persistence Resources Group	2024	Listing on HKEx
Huibei GreenGold	2023	Listing on HKEx
China Graphite	2022	Listing on HKEx
Pizu Group	2020	Major acquisition on HKEx
Heaven-Sent Gold Group	2019	Listing on HKEx
China Unienergy	2016	Listing on HKEx
China Mining Resources	2016	Major acquisition of Tongguan project on HKEx
Agritrade Resources	2015	Major acquisition on HKEx, purchased shares of an Indonesia coal mine
Feishang Non-metals	2015	Listing on HKEx
Future Bright Mining	2014	Listing on HKEx
Hengshi Mining	2013	Listing on HKEx
Jinchuan Group International	2013	Major acquisition on HKEx
China Daye Non-Ferrous	2012	Very substantial acquisition on HKEx
MMG	2012	Very substantial acquisition on HKEx
China Nonferrous Metal Mining	2012	Listing on HKEx
China Hanking Holdings	2011	Listing on HKEx
CNNC International	2010	Acquisition of uranium mine in Africa
Sino Prosper	2010	Acquisition of gold mine in Inner Mongolia
United Company RUSAL	2010	Listing on HKEx
New Times Energy	2010	Acquisition of Hebei gold mine
Citic Dameng Holdings	2010	Listing on HKEx
Hao Tian Resources	2009	Very substantial acquisition on HKEx
Green Global Resources	2009	Acquisition of iron ore mine in Mongolia
Ming Fung Jewellery	2009	Acquisition of gold mine in Inner Mongolia
Continental Holdings	2009	Acquisition of Henan gold mine
North Mining	2009	Acquisition of Shaanxi molybdenum mine
Kiu Hung International	2008	Acquisition on HKEx, purchased shares of a coal mine in Inner Mongolia
Sino Gold Mining Limited	2007	Dual listing on HKEx and ASX
Xinjiang Xinxin Mining Industry	2007	Listing on HKEx

Company	Year	Project Nature
Yue Da Enterprise Group	2006	Acquisition of equity of a lead-zinc mine in China and completion of transaction on HKEx
China Coal Energy Company	2006	Listing on HKEx
Lingbao Gold	2005	Listing on HKEx
Zijin Gold Mining	2004	Listing on HKEx
Aluminum Corporation of China	2001	Dual listing on HKEx and NYSE
Yanzhou Coal Mining	2000	Sold Jining #3 Coal mine to Listco

Source: SRK

1.7.10 Statement of SRK independence

Neither SRK, nor any of the authors of this Report, has any material present or contingent interest in the outcome of this Report, nor any pecuniary or other interest that could be reasonably regarded as capable of affecting their independence or that of SRK. SRK has no beneficial interest in the outcome of this Report capable of affecting its independence.

1.8 Consulting fees

SRK's fee for completing this Report is based on a fixed price contract. The total project fee amounts to around HK$3 million. The payment of that professional fee is not contingent on the outcome of this Report.

2 TUNGSTEN

Tungsten is an element with the chemical symbol, W, and atomic number 74. It is a dense, hard, steel-gray metal that is known for its high melting point, high density, high tensile strength, and excellent corrosion resistance. Tungsten has the highest melting point of all metals and is often used in applications that require extreme heat resistance, such as in light bulb filaments, electrical contacts, and high-speed cutting tools. It is also commonly used as an alloying element in the production of various steels and superalloys. Tungsten compounds are used in a variety of industries, including electronics, aerospace, military, automotive, and mining.

2.1 Tungsten products

Tungsten concentrate is the primary product of tungsten mine production (Figure 2.1). The main types of tungsten concentrate include, scheelite and wolframite concentrates. Scheelite is a calcium tungstate mineral, and scheelite concentrate is derived from ores rich in scheelite. It is the most common type of tungsten concentrate produced worldwide. Wolframite is an iron-manganese tungstate mineral. Wolframite is typically associated with other minerals, such as cassiterite (tin ore). Marketable scheelite and wolframite concentrates typically contain 65-70% WO_3.

Most tungsten concentrates undergo beneficiation processes to remove impurities and increase the tungsten content. The concentrate is then chemically processed to convert it into ammonium paratungstate (APT), which is a white crystalline powder containing a high concentration of tungsten.

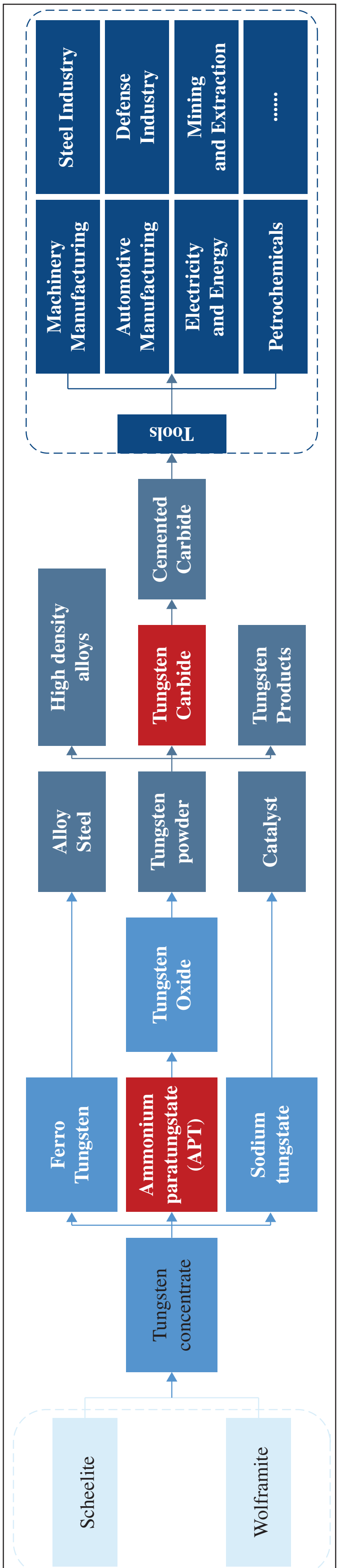
APT is used as a feedstock for the production of other products but is mainly used as a feedstock for tungsten oxide. Tungsten oxide is then converted to tungsten metal powder, which is further used in the production of tungsten carbide (WC). Tungsten carbide serves as the main raw material in the manufacturing of cemented carbide.

Cemented carbide is a composite material made primarily of tungsten carbide particles bound together by a metallic binder, usually cobalt. It is a highly versatile and widely used material known for its exceptional hardness, wear resistance, and strength. Cemented carbide has a wide range of applications across various industries. It is commonly used in cutting tools such as drills, end mill, inserts, and saw blades due to its excellent hardness and wear resistance. It is also used in wear parts, such as nozzles, valve seats, wire drawing dies, and mining tool inserts. Additionally, cemented carbide finds applications in industries such as aerospace, automotive, metalworking, and mining, where high-performance materials are required.

Other markets for tungsten concentrate are for the production of ferrotungsten and sodium tungstate. Ferrotungsten serves as a master alloy used in the production of tungsten-containing steels. The raw materials for ferrotungsten production are rich ore or ore concentrates of wolframite or scheelite. Sodium tungstate is used in various applications, including catalysts in chemistry, the production of pigments and dyes and metal surface treatments.

The primary product of this Project is scheelite concentrate, which contains 65% WO_3. In addition, the Company is considering the construction of a refinery for the future production of APT and WC.

Figure 2.1: Tungsten concentrate and its secondary products



Source: F&S

3 PROJECT OVERVIEW

3.1 History and development

The Boguty tungsten deposit was discovered in 1941 and prospected by various parties until 1969. From 1969 to 1974, the Geological Survey of South Kazakhstan, a former Soviet Union (FSU) organization conducted systematic exploration, including diamond drilling, trenching and extensive underground development (hereafter known as the FSU program) (Figure 3.1).

From 2014 to 2015, Behre Dolbear Asia, Inc. (BD) was commissioned by Jiaxin to conduct a program to verify the previous exploration results (hereafter the BD program).

In November 2015, through the acquisition of Aral-Kegen LLP (AK), Jiaxin obtained indirect control over Zhetisu Volframy LLP (Zhetisu), which held the mining rights to the Project.

Between 2015 and 2019, a series of metallurgical testwork programs were carried out by various Chinese research institutes. A series of technical studies including feasibility studies, metallurgical testwork and ore sorting testwork were carried out by various Chinese research institutes at this time culminating in a feasibility study on the Project by China ENFI Engineering Co., Ltd (ENFI).

In June 2020, a preliminary design (the Preliminary Design) was jointly completed by ENFI and the Kazakhstan Eastern Mining and Metallurgical Research Institute for Non-ferrous Metals (VNIItsvetmet), an affiliate of the National Center for Complex Processing of Mineral Raw Materials of the Republic of Kazakhstan. The Preliminary Design covered all of the proposed construction elements inside the Project area. Construction of external power and water supply, design of TSF and various environmental impact assessments (EIAs) for the Project were completed by VNIItsvetmet and ANTAL Design Institute (ANTAL) around this time.

3.2 Construction status

In May 2021, the full-scale construction of the Project commenced with China Civil Engineering Construction Corporation (CCECC) as the contractor.

During the construction period, the progress of the Project was hindered by the outbreak of the COVID-19 pandemic and the subsequent implementation of travel restrictions, border control and quarantine measures between Kazakhstan and China extending from 2021 to early 2023. In addition, the more recent onset of the Russia-Ukraine conflict has disrupted the procurement sources and supply chains. With the removal of all COVID-related measures, logistics between Kazakhstan and China have returned to normal. In September 2023, a significant milestone in the construction was achieved with the completion of pre-stripping.

By July 2024, construction of the processing plant complex was completed, equipment was installed, auxiliary facilities were largely set up, and testing of the processing plant equipment commenced. The 22 km-long water pipeline supplying water to the Project was completed.

In late October 2024, high-voltage power lines were completed, connecting the Project to the 30 MW power grid. Commercial mining operations commenced.

In November 2024, the TSF was put into operation.

The installation of the processing plant and auxiliary equipment, access to water and connection to the main grid power was completed by the second half of CY2024.

The trial production phase, which allows testing and fine-tuning of the processing operation, commenced in November 2024.

Phase I commercial production commenced in April 2025, with the target processing throughput of 3.3 Mtpa of ore.

3.3 Commissioning targets

In the second half of CY2026, the target processing volume will ramp up as the ore sorting system is integrated into the current flowsheet.

From the first quarter of CY2027, the plant will enter the Phase II commercial production and reach its target processing throughput of 4.95 Mtpa of ore.

Figure 3.1: Timeline of major development milestones at the Project

Source: Jiaxin

Figure 3.2: Development status as at June 2025

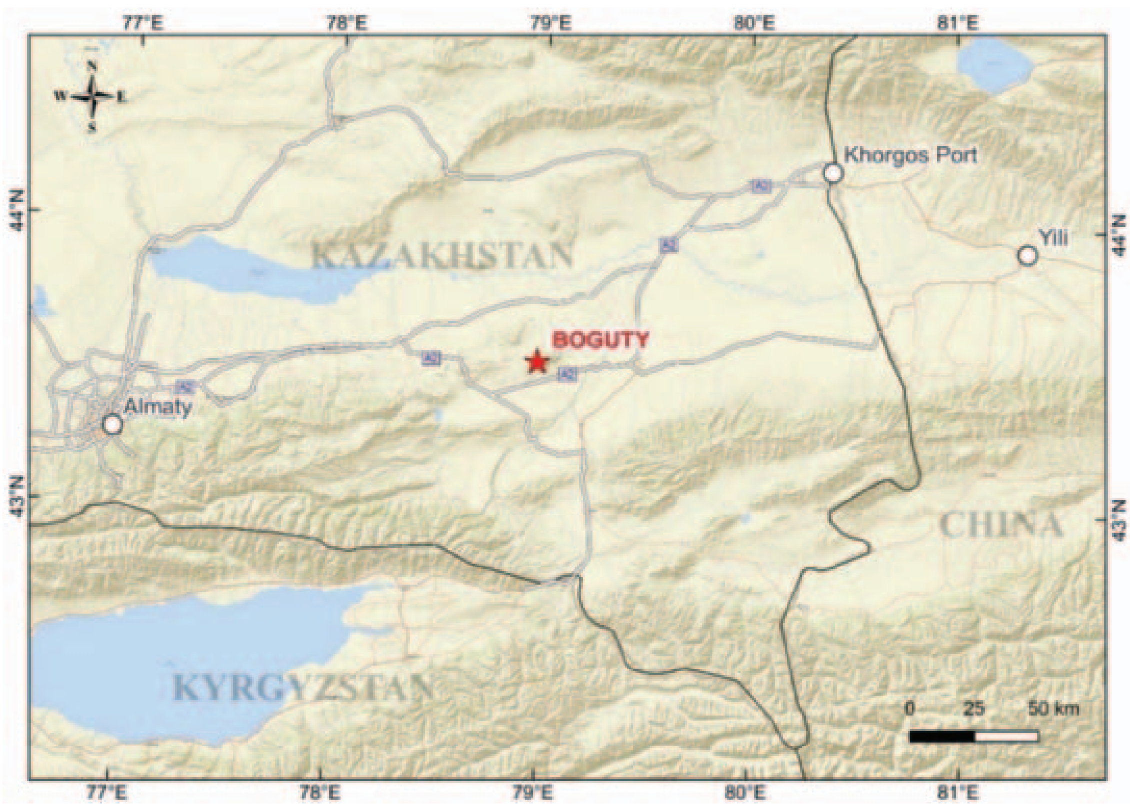
Source: SRK

Note: Basemap showing LOM layout of the Project in the Preliminary Design and photographs showing development status as at June 2025.

3.4 Access

The Project is geographically centered at latitude: 43º32'22"N and longitude: 78º58'31"E within the Yenbekshikazakh district of the Almaty region, at the eastern end of the Zailiysky-Alatau mountain range. It is located approximately 180 km east of Almaty. It can be accessed by vehicle via the A2 highway, which takes approximately 2.5 hours from Almaty. The Khorgos crossing with China, which is used for both passenger and cargo, is located 160 km to the east of the Project along the A2 highway. The closest international airport is in Almaty, with regular flights to key cities in the region, as well as several global transportation hubs (Figure 3.3).

Figure 3.3: Project location



Source: modified after ESRI

The main access road to the mine has been constructed and branched from the A2 all-weather highway. The road is 9 m wide, paved with graded rock fragments, from bottom to top 22 cm mixed gravels basement, 25 cm graded gravels and 3–4 cm wearing coarse. The Project area has been fenced and a security checkpoint has been established at the mine entrance.

Most equipment and materials are now sourced and procured from China, where shipment can be made through the Khorgos Port. Export of tungsten products to China can also be trucked along the same route. Export to other overseas markets can be achieved by Trans-Caspian International Transport Route (TCITR), an international logistics infrastructure corridor which starts in China and extends through Kazakhstan, the Caspian Sea, Azerbaijan, Georgia, Turkey and on to Europe. The nearest rail station on TCITR to the Project is the Altynkol station in the Kazakhstan side of Khorgos Port (Figure 3.4), a distance of approximately 160 km.

Figure 3.4: Trans-Caspian International Transport Route

Source: Транскаспийский Международный Транспортный Маршрут (*TCITR*)

3.5 Climate and physiography

The climate at the Project area is continental. In January, the average monthly temperature is -8.8°C, while in July, it rises to a peak of 28.9°C. The seasonal temperature fluctuations are significant, ranging from 40°C in summer to -39°C in winter. Annual precipitation averages at 442.4 mm (rainfall) and 64.22 mm (snow), with most of the precipitation falling between March and May. The prevailing wind direction is predominantly from the east and southeast, with average annual speeds ranging from 1.0 m/s to 2.0 m/s.

The region experiences various adverse weather conditions throughout the year. These include late spring and early autumn frosts, strong winds, dust storms, hail, drought, and dry winds, as well as snowstorms, and strong winds in winter.

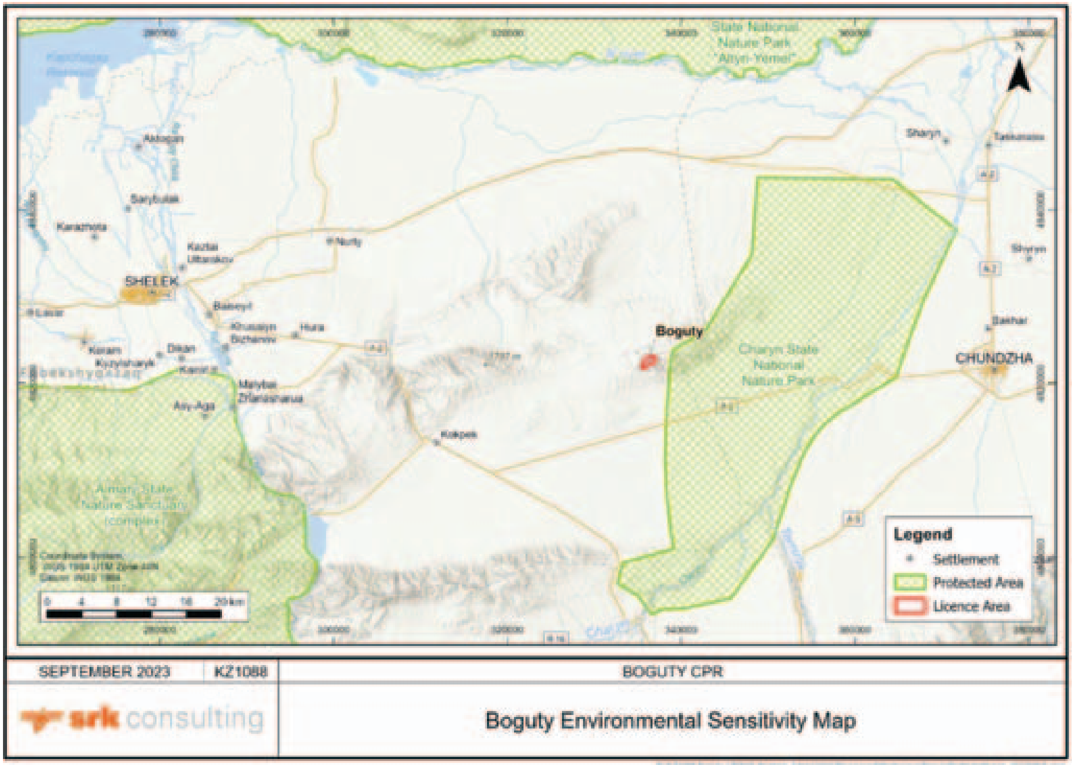
The Project area is located in hilly area, consisting of narrow valleys with rocky or scree slopes. The maximum elevation within the Project area is 1,812.4 m above sea level.

The nearest settlement to the Project is the Kokpek village, located 25 km to the northeast. The latest available census data is from 2009 and recorded that 74 people lived in this village. In addition, two other settlements, Shelek and Chundzha, are situated to the west and east of the Project, respectively (Figure 3.5).

The district economy relies primarily on agriculture, albeit on a small scale. The main commercial crops cultivated are cereals, oilseeds (including sunflower and safflower) and soybeans. In addition, livestock grazing is widespread in the district, despite the fragmentation of grazing lands caused by road development. During SRK's site visit in July 2023, livestock grazing was observed to be occurring approximately 7-8 km away from the Project area. However, the Project area is fenced, which effectively mitigates the risk of livestock entering the Project area.

The Charyn State National Nature Park is located to the immediate east of the Project area. This Park, which is transected by the Charyn River, serves as a protected area for the migration routes and habitats of various wild animals, including rare and endangered ungulate species. It also preserves the habitats of rare and endangered plant species (Figure 3.5).

Figure 3.5: Natural environment and communities near the Project



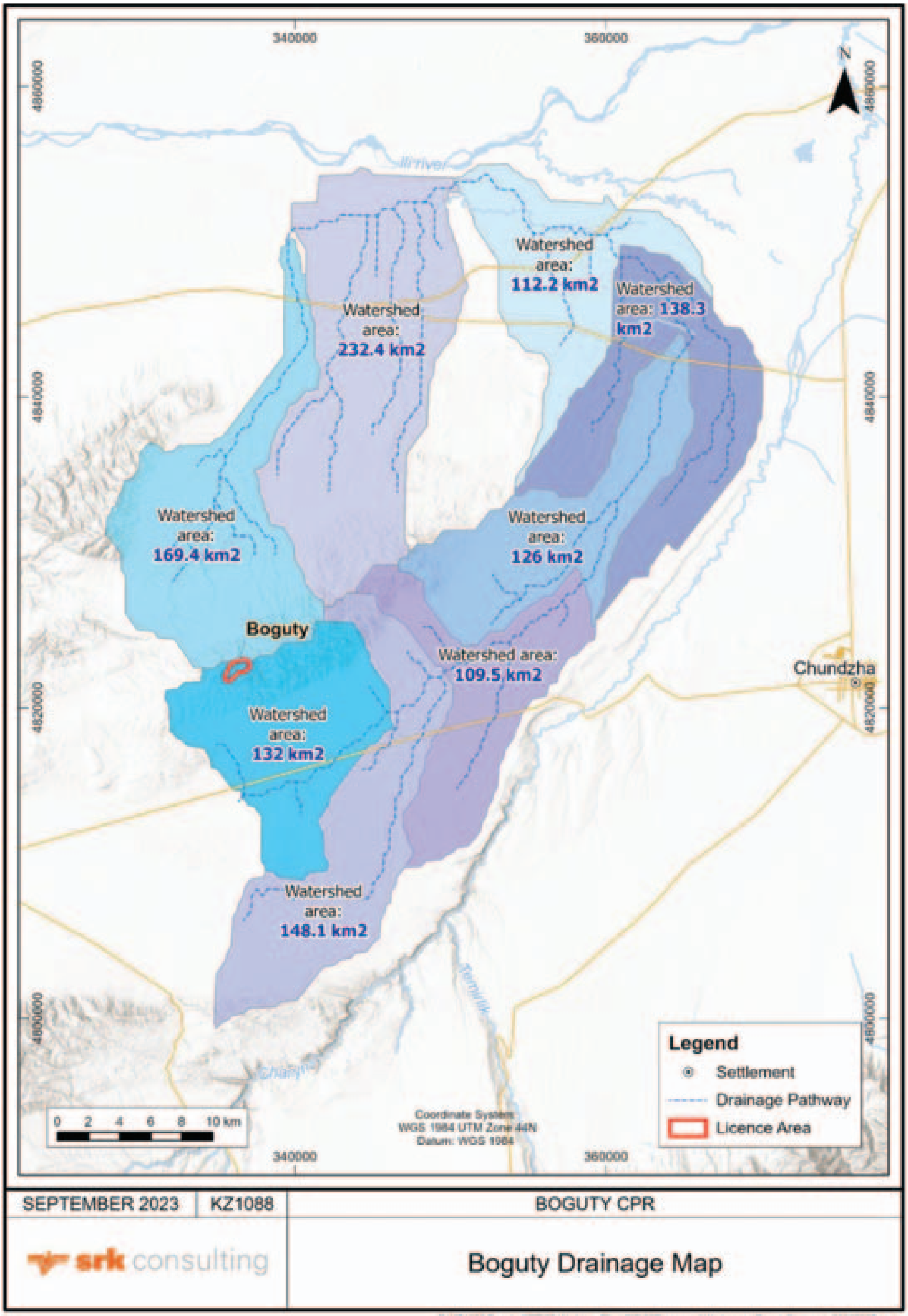
Source: SRK

The Project is situated in proximity to two significant water bodies, namely the Charyn River, located 20 km to the south, and the transboundary Ili River, which flows approximately 35 km to the north from the Project area. A catchment map illustrating the potential drainage pathways from the Project area (Figure 3.6) highlights that the water catchments of the Project facilities directly drain towards the Ili River.

The Ili River is a transboundary river shared by China upstream and Kazakhstan downstream. It serves as the primary water source for the Kapchagay Reservoir and Lake Balkhash. The flow of the Ili River from northwest China has been declining steadily since the 1970s, while the agricultural land area along the Ili River in China has increased by 30% in the past two decades. Intensive water usage is also prevalent within Kazakhstan. More than 90% of the water extracted from the Ili River is used for irrigated agricultural purposes, as well as the Kapchagay Hydroelectric Power Plant, and municipal and industrial water supply.

Since its construction in 1970, the Kapchagay water reservoir (capacity: 39 km^3 of water derived from the Ili River) has decreased the flow in the Ili River by two-thirds and led to a decline in the lake's water level. Lake Balkhash, which depends on the glacier-fed transboundary Ili River for 80% of its capacity, remains vulnerable to runoff and climate change. The lake's area and volume have experienced significant variations, exhibiting both long-term and short-term fluctuations in water levels.

Figure 3.6: Location of Project area relative to catchments towards the Ili River



Source: SRK

3.6 Seismicity

Based on the Kazakhstan regional seismicity map, the seismic fortification intensity of the Project area is at Magnitude 9. The peak ground acceleration ranges from 0.415g to 0.598g, depending on the rock types present, as well as the soil and rock mechanics. The Project area mainly consists of sedimentary rocks and the peak ground acceleration is determined at 0.506g.

The design and construction of the Project has taken the potential earthquake risk into account and earthquake precautionary reinforcement has been included.

3.7 Mining rights

The mining rights of the Project are covered by the Subsoil Use Contract No. 4608-TPI and three subsequent addenda. The current owner of the Subsoil Use Contract is Zhetisu Volframy LLP (Zhetisu). Zhetisu operates as a joint venture (JV) company with two participants: Aral-Kegan LLP (AK), holding 97% of the participatory interest, and Ever Trillion International Singapore PTE LTD, holding 3% of the participatory interest. AK has two participants: Jiaxin International Resources Investment Limited S.à.r.l., holding 99.99% of the participatory interest, and Mr. Liu Liqiang, holding 0.01% of the participatory interest.

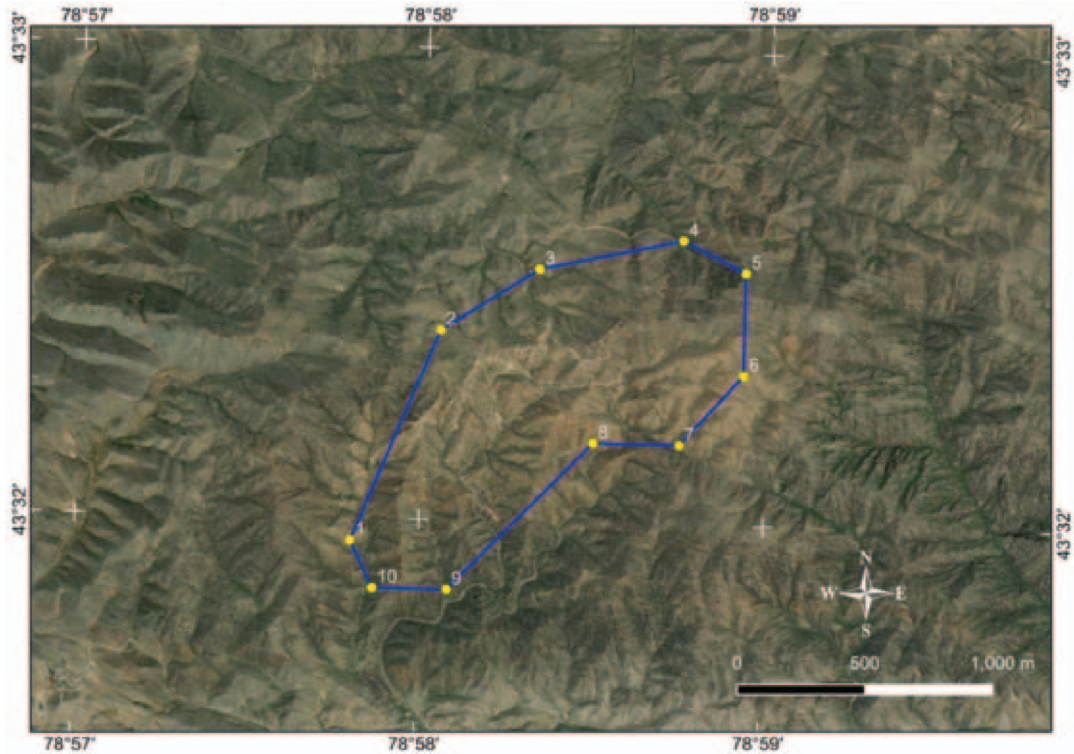
The mining rights cover an area of 1.16 km^2 and permits exploitation of the resource up to a maximum depth of 300 m below surface. The specific boundaries of the mining licence are outlined in Table 3.1 and shown in Figure 3.7. The mining rights were issued by the Ministry of Investments and Development of Kazakhstan, MID (a predecessor of the Ministry of Industry and Construction of Kazakhstan, MIC) is valid from 2 June 2015 to 2 June 2040 for period of 25 years.

Table 3.1: Boguty mining rights coordinates

Boundary Point	Latitude	Longitude
1	43°31’56”	78°57’50”
2	43°32’23”	78°58’05”
3	43°32’31”	78°58’22”
4	43°32’35”	78°58’47”
5	43°32’31”	78°58’58”
6	43°32’18”	78°58’58”
7	43°32’09”	78°58’47”
8	43°32’09”	78°58’32”
9	43°31’50”	78°58’07”
10	43°31’50”	78°57’54”

Source: Jiaxin

Figure 3.7: Mining rights projected on satellite image



Source: SRK

4 GEOLOGY AND MINERAL RESOURCES

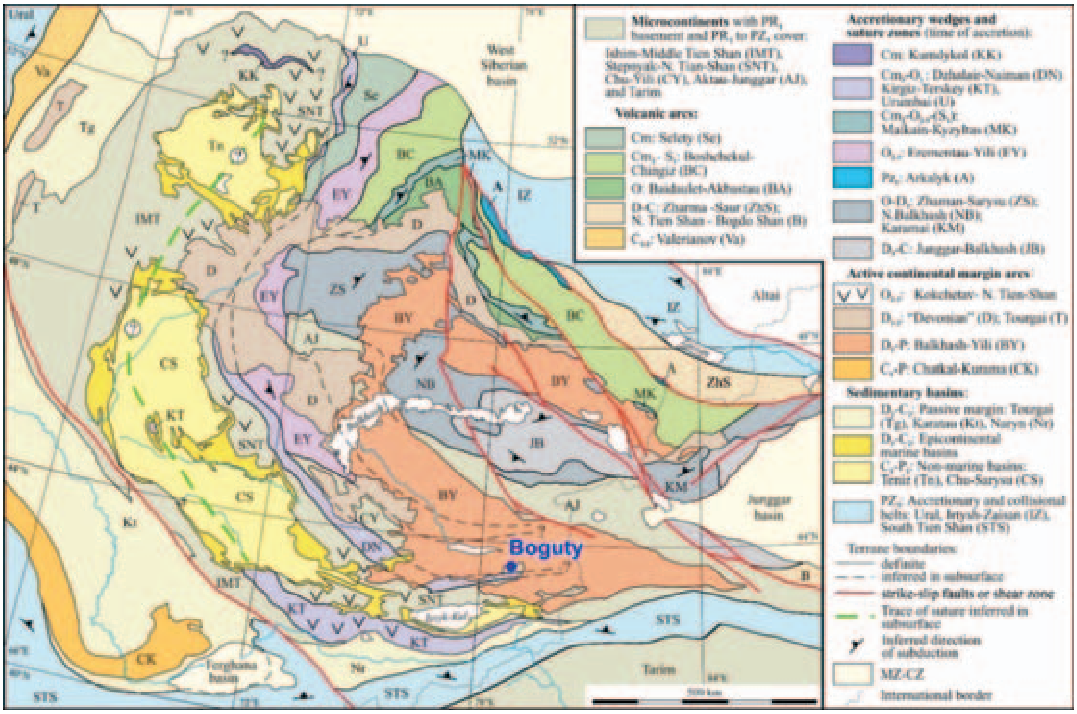
4.1 Regional geology

Regionally, the Project is situated on the Chu-Yili microcontinent, which constitutes the southern limb of the Kazakhstan Orocline within the western Central Asian Orogenic Belt (CAOB) (Windley et al., 2007 and Wang et al., 2019).

The basement rocks of the Chu-Yili microcontinent comprise Cambrian gabbro and ultramafic rocks overlain by Palaeozoic sedimentary rocks from the Ordovician Ulkenboguta Formation, with a total thickness of 2,800-4,300 m. These sedimentary sequences consist of conglomerate, sandstone and siltstone to mudstone units (Windley et al., 2007 and Wang et al., 2019).

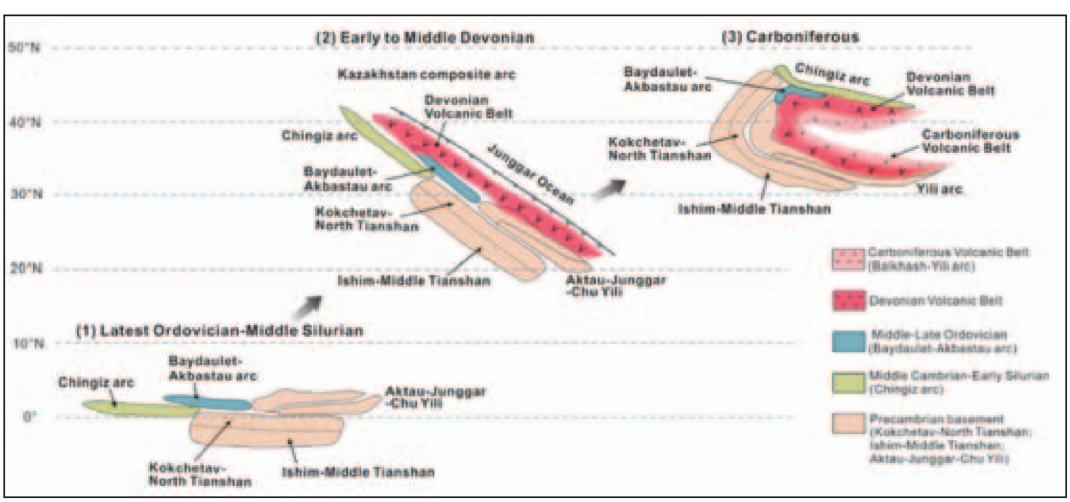
During the Late Ordovician to Middle Silurian, subduction and accretionary events caused compression and amalgamation of the Chu-Yili microcontinent with other geological terranes and microcontinents. This process resulted in the formation of a complex fold belt, accompanied by subparallel and steeply dipping faults and fractures striking north to northeast. Multiple phases of granitic magmatism associated with the orogeny in the Devonian and Carboniferous intruded the folded sediments. These intrusive events are regionally associated with hydrothermal mineralisation (Figure 4.1 & Figure 4.2) (Windley et al., 2007 and Wang et al., 2019).

Figure 4.1: Regional tectonic setting of the Kazakhstan Orocline, western Central Asian Orogenic Belt



Source: modified after Windley et al., 2007, Wang et al., 2019

Figure 4.2: Tectonic model of the Kazakhstan Orocline



Source: modified after Wang et al., 2019

4.2 Local geology and mineralisation

The Project is situated in the southern portion of the Boguty Syncline, which was formed during the Late Ordovician. The central part of this fold hosts Lower Palaeozoic sediments, primarily consisting of sandstone, siltstone and shale sequences from the Middle and Upper Members of the Ordovician Ulkenboguta Formation. The limbs of the fold comprise Upper Palaeozoic volcanic rocks (GKZ, 1974, Figure 4.5).

During the Devonian (400-500 Ma), a porphyritic granite intrusion was emplaced into the folded sedimentary rocks along a series of north-trending faults. Extensive subparallel fractures that trend northwest within the folded rocks were formed. A subsequent phase of granitic intrusion, dated at around 380-410 Ma, occurred in association with tungsten-bearing hydrothermal fluids. This process led to the development of a network of quartz-scheelite veins, primarily filling the fractures in the southeastern contact zone within the granite, within the siltstone and sandstone unit of the Middle Member of the Ulkenboguta Formation. These quartz-scheelite veins range in length from a few centimetres to tens of centimetres and occur as stockworks and veinlets. These centimeter-scale veins commonly occur as conjugate sets, cutting through the sediments. Disseminated scheelites also occur in the surrounding host sediments (Figure 4.3, Figure 4.4 & Figure 4.5).

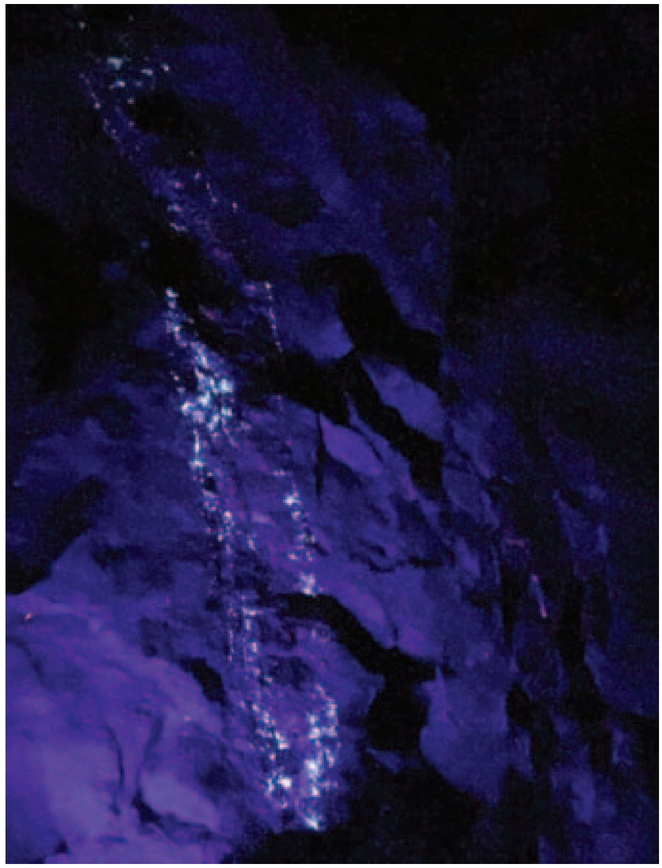
The mineralisation extends of a length of approximately 2,000 m in a northeast direction, with a lateral extent of 400 m towards the east. It dips subvertically northwest, reaching a maximum depth of 500 m below surface. The quartz veins and association mineralisation appear to diminish in number when mineralisation extends into the younger shale sequence and finer-grained, siliceous sediments of the Upper Member of the Ulkenboguta Formation. Two post-mineralisation dykes, measuring 1-4 m in width, are also present. These diabase and lamprophyre dykes cut through the central part of the known mineralisation (Figure 4.5, Figure 4.9 & Figure 4.10).

The principal ore mineral is scheelite ($CaO \bullet WO_3$) and there are subordinate amounts of wolframite ($(Fe,Mn)O \bullet WO_3$) and tungstite ($WO_3 \bullet H_2O$). The distribution and occurrence of scheelite mineralisation exhibit highly irregular patterns. Scheelite is predominantly observed as minute grains enclosed within quartz minerals and brecciated quartz fragments. The thickness and morphology of the mineralisation also vary significantly over short distances. In addition to scheelite, field and core inspections have revealed the presence of other metal minerals, including pyrite, haematite, chalcopyrite, spherite, molybdenum and galena.

Figure 4.3: Quartz-scheelite veins cutting through sandstone

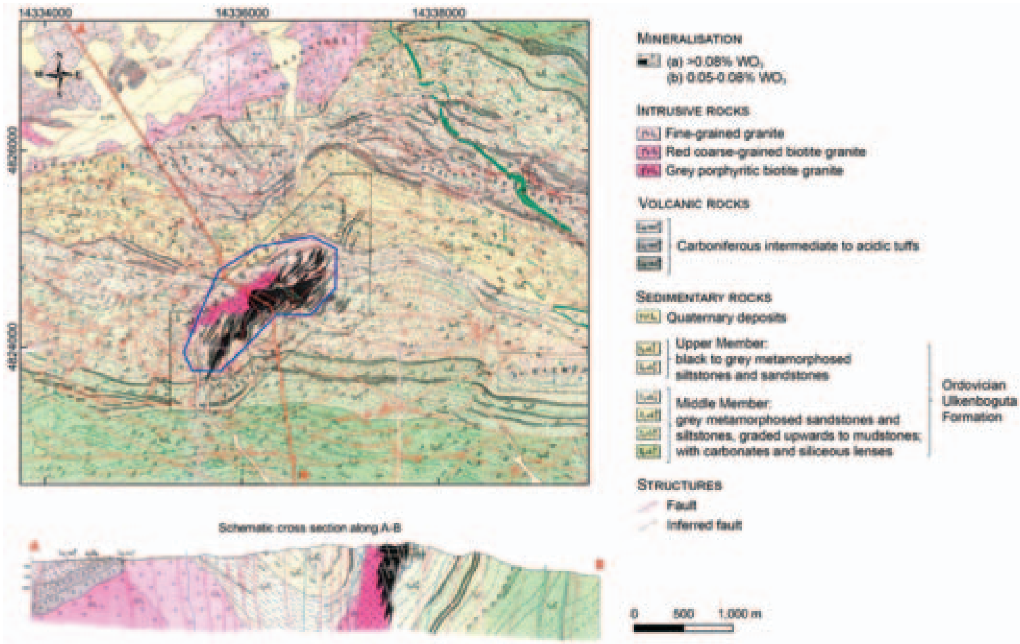
Source: SRK site visit July 2018

Figure 4.4: Fluorescent scheelite grains observed on the adit wall under ultraviolet light



Source: SRK site visit July 2018

Figure 4.5: Geology and schematic cross section of the Project area



Source: modified after GKZ

4.3 Historical exploration

Prior to 1969, several small-scale exploration programs were conducted in the Project area by various groups (Table 4.1). However, the samples were not properly preserved, and exploration results were not documented in detail.

In the period between 1969 and 1974, the Geological Survey of South Kazakhstan, an FSU organization carried out a systematic exploration program (known as the FSU program). In 2014-2015, Jiaxin commissioned BD and its collaborator to carry out a verification program of the previous exploration results (the BD program).

The key historical exploration works are summarized in Table 4.1. Details of the systematic exploration conducted between 1969 and 1974 and the verification program carried out in 2014-2015 are described in Section 4.4.

Table 4.1: Summary of historical exploration

Year	Parties involved	Key exploration works
1941	I.I. Mashkara	• Discovery of scheelite, quartz and molybdenum mineral sands in the Boguty area
1942	Geological Survey of Kazakhstan	• Exploration on rare metals in placers • Discovery of scheelite-bearing placers • Sampling of 21 scheelite-bearing veins and 1 molybdenite-bearing vein
1942-1948	Mine Department of Almaty	• Small-scale mining on the tungsten placers, producing a total of 175 t of scheelite concentrate • Excavation of four adits totaling 207 m, intercepting >5 cm quartz veins with average WO_3 grade at 0.37%
1947-1954	Kazakhstan Geology and Metals Joint Company	• 7 km^2 of surface mapping, 377 m of prospecting holes and 100 m^3 of trenches • Collection of 588 sand samples and 91 test samples • Identification of 29 quartz-scheelite vein outcrops • Collection of 168 samples from 23 veins • Assay of placer samples with scheelite of 233-583 g/m^3 in raw samples and 2,477 g/m^3 in sieved samples • Production of 17 t of placer scheelite concentrates
1961-1963	Geological Survey of Soviet Union	• Research on rare metals mineralisation and compilation of exploration targets in South Kazakhstan • Prospectivity study of stockwork-type deposits in the Boguty area
1968	Geological Survey of South Kazakhstan	• Excavation of four trenches (200 m spacing) cutting through the central part of mineralised stockwork outcrop

Year	Parties involved	Key exploration works
1969-1974	Geological Survey of South Kazakhstan; National Reserve Committee of Soviet Union	• 1:10,000 surface geological mapping • 12,176.7 m of surface drilling, 7,440.3 m of underground drilling and collection of 3,459 samples • Excavation of 30,690 m^3 of surface trenches and collection of 19,943 m or 8,452 channel samples • Development of three levels of adits with a total length of 12,987 m, including drifts and cross-cuts, and collection of 17,576 m or 7,618 channel samples from adit walls • Comprehensive geotechnical and hydrological drilling, sampling and testing • Sample collection and metallurgical testwork on 1,511 t of samples
2014-2015	Jiaxin; Behre Dolbear Asia, Inc.	• Resampling of 16 groups of check adit intervals, totaling 362 m and 181 samples • Resampling of 9 groups of check trench intervals, totaling 152 m, and collection of 76 samples • 18 diamond drill holes totaling 5,075.1 m

Source: GKZ, BD, compiled by SRK

4.4 FSU and BD exploration programs

4.4.1 Overview

The FSU program was carried out between 1969 and 1974 by the Geological Survey of South Kazakhstan. This systematic exploration program included mapping, trenching, drilling, adit development, geophysical surveys, mineralogical and petrological studies and metallurgical testwork (Figure 4.6 & Figure 4.7). The exploration lines were laid down perpendicular to the interpreted strike of the deposit, at approximately 120°-300°. Each exploration line was spaced at a nominal 50 m distance in the central part the deposit and 100-200 m towards the northeastern and southwestern ends of the deposit. No samples from the FSU program were preserved, but all exploration results were recorded systematically in a five-volume report and associated maps, compiled by the National Reserve Committee of Soviet Union (GKZ) in 1974. The results included an estimate of the quantum of mineralisation (GKZ, 1974).

Figure 4.6: Adits development — FSU program

Source: SRK site visit July 2018

Figure 4.7: Surface trenches across the deposit — FSU program

Source: SRK site visit July 2018

In 2014-2015, BD carried out further studies designed to validate the historical results from the FS program. At this time, the adits and trenches were cleared and assessed, and check samples were collected along historical adits and trenches. Surface drilling was also conducted (Figure 4.8). BD's validation program resulted in the definition of a Mineral Resource estimate in accordance with the guidelines of the 2012 JORC Code (BD, 2015).

Figure 4.8: Surface drill hole and drill core storage — BD program

Source: SRK site visit July 2018

4.4.2 Surveying

For survey projection purposes, the Pulkovo 1942/Gauss-Kruger Zone 14 coordinate system was used in the BD program. All adit portals, trenches and drill holes of the FSU program were resurveyed by a contractor using the global positioning system-real time kinematic (GPS-RTK) system. The same system was used to survey the drill holes during the BD program. Jiaxin provided the topographic map as of December 2023 of the Project area, which also used the GPS-RTK system. In the BD program, downhole surveys were measured every 50 m using REFLEX ACT™ equipment.

4.4.3 Surface trenching

In the FSU program, trenches were excavated along the exploration lines at a nominal 50 m spacing (Table 4.2). Between exploration lines 20 and 28, trenches were excavated at a closer spacing of 25 m to improve control of the geometry of the deposit. A total volume of 30,690 m^3 of material was excavated. Along the trenches, channels measuring 10 cm × 5 cm × 2 m were cut, resulting in a total length of 19,943 m, and 8,452 samples were collected using hammers and chisels. A full list of trenches excavated is shown in Appendix A.

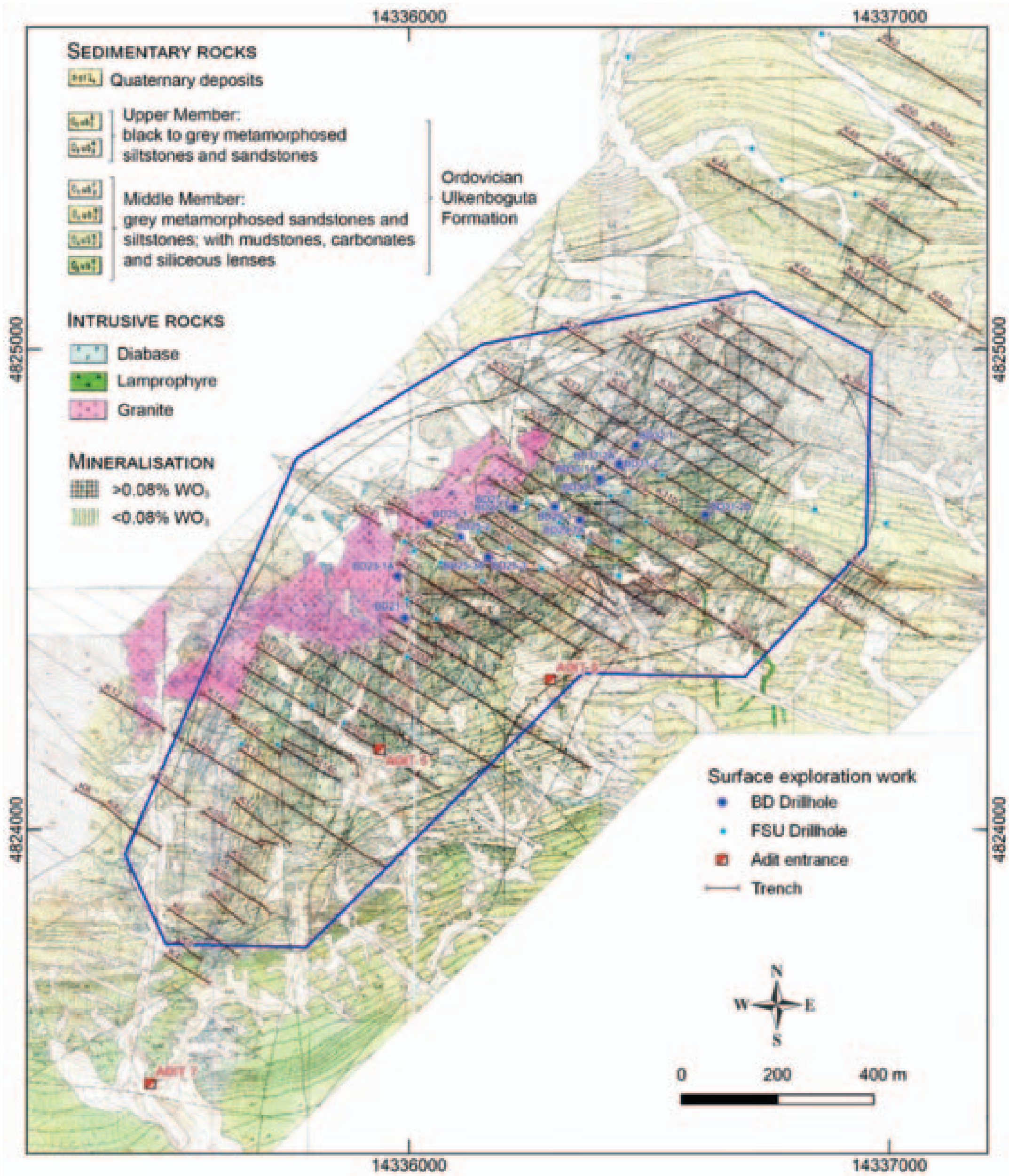
In the BD program, nine groups of trench intervals were cut, a total of 152 m, and 76 check samples were collected between exploration lines 24 and 38. SRK inspected the trenches excavated during the FSU and BD programs during the SRK site visit in 2018.

Table 4.2: List of BD trench ID and their corresponding FSU trench ID and sampling intervals

BD Trench ID	FSU Trench ID	From	To	Length
		(m)	*(m)*	*(m)*
#K34	K34	181	195	14
#K37	K37	155	165	10
#K38	K38	99	109	10
#K32	K32	410	430	20
#K31	K31b	62	82	20
#K29	K29	278	302	24
#K28	K28b	176	182	6
#K24	K24b	132	150	18
#K30	K30	242	262	20

Source: GKZ, BD, compiled by SRK

Figure 4.9: Surface exploration works



Source: modified after GKZ, BD

4.4.4 Underground sampling

In the FSU program, three levels of adits were developed: Adit 6 at 1,625 mRL, Adit 5 at 1,565 mRL and Adit 7 at 1,445 mRL. The locations of the adit portals are shown in Figure 4.9. These adits have a combined length of 12,887 m. The main drifts, measuring 3 m × 3 m, run parallel to the strike of deposit, while the cross-cuts, also measuring 3 m × 3 m, are perpendicular to strike, aligning with the exploration lines. The entire length of the north walls was sampled, approximately 1.5 m above the floor. Most of the mineralised intervals on the opposite south wall were also sampled. In total, 7,618 samples were collected, with a cumulative length of 17,576 m. The samples were collected by either hammers and chisels, or saws, from channels measuring 10 cm × 5 cm × 2 m. A full list of the developed cross-cuts is shown in Appendix B.

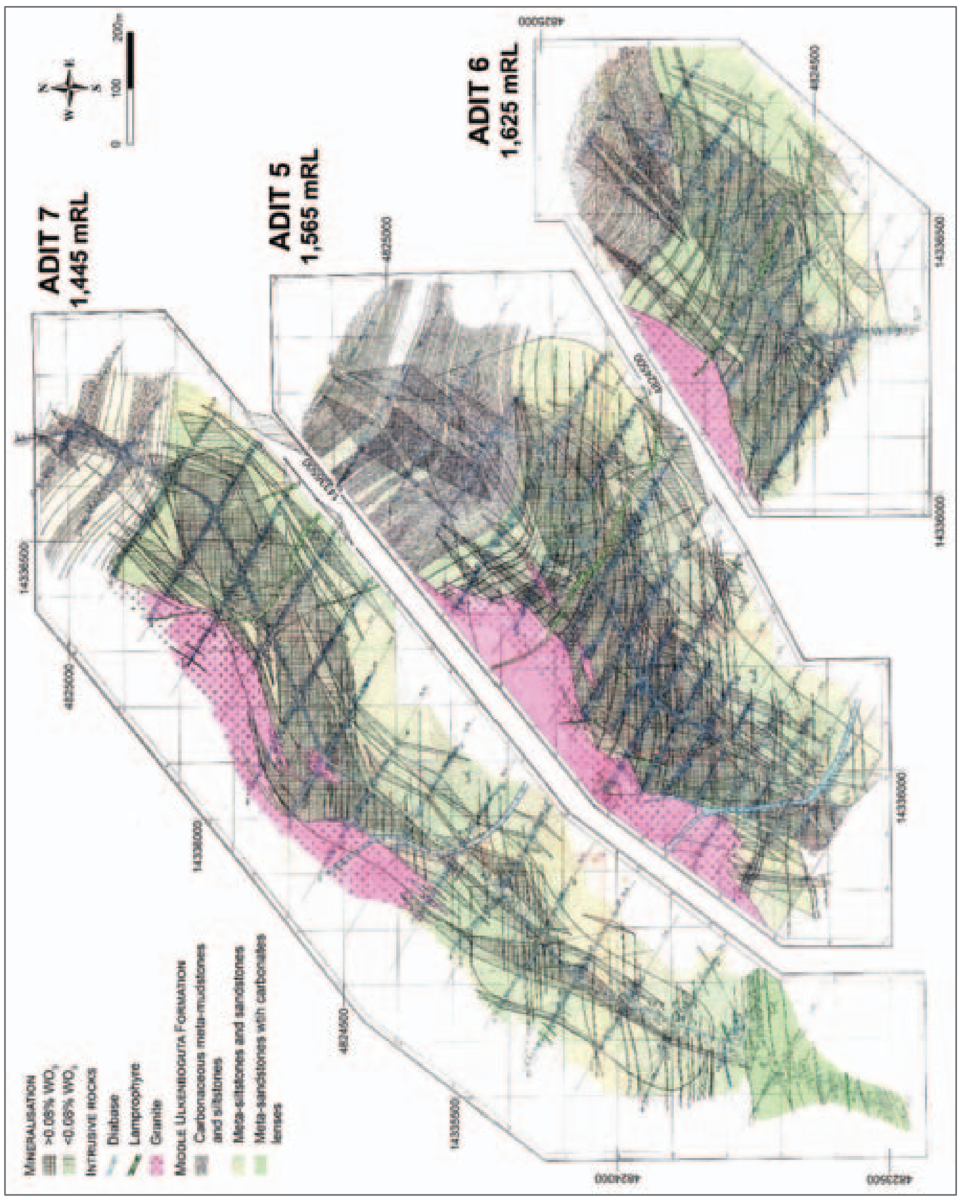
In the BD program, check sampling was conducted on 16 groups of representative intervals in adits 5 and 6, spanning exploration lines 22 to 29 (Table 4.3). A total of 181 samples, each with a 2 m length, were collected. The samples were obtained using a hammer and chisel from channels measuring 10 cm × 3 cm × 2 m. SRK inspected the channels cut by the FSU and BD programs during SRK's site visit in July 2018.

Table 4.3: List of BD cross-cut ID and their corresponding FSU cross-cut ID and sampling intervals

BD cross-cut ID	FSU cross-cut ID	From	To	Length
		(m)	*(m)*	*(m)*
#1	624C3_N	227	251	24
#2	624C3_N	81	107	26
#4	626C3_N	8	34	26
#6	627HB_N	36	60	24
#7	628C3_N	38	58	20
#8 (REVISED)	629C3_N	0	24	24
#12	518C3_N	72	92	20
#15	522C3_N	114	134	20
#14	522HB_N	10	34	24
#16	523C3_N	54	84	30
#17	524C3_N	86	106	20
#18	524HB_N	48	68	20
#21	526HB_N	4	18	14
#22	527C3_N	66	78	12
#23	528HB_N	8	24	16
EXTRA	524C3_N	0	42	42

Source: GKZ, BD, compiled by SRK

Figure 4.10: Main drifts, cross-cuts and interpreted geology in Adits 5-7



Source: modified after GKZ

4.4.5 Surface and underground drilling

In the FSU program, 38 surface drill holes were drilled in the central part of the deposit. The drill holes had a combined length of 12,176.7 m and were spaced approximately 50 m × 100 m, with wider spacing towards the fringes of the deposit. The core recovery of the surface drill holes was generally poor, ranging from 37% to 75%, with an average of 55%. The original drill log sheets were not preserved. Assay results were recorded only for the mineralised intervals, and cores were not photographed, but were sampled in their entirety. SRK was able to locate the collars of these historical drill holes during its site visit in 2018.

A total of 71 subhorizontal underground drill holes (for 7,440.3 m) were conducted across three adit levels, with the core recovery of the drill holes ranging from 31% to 96%. The primary objective of the underground drilling was to assess the extent of mineralisation encountered in the cross-cuts of the adits to help guide the underground development.

In the BD program, diamond drill holes were positioned between exploration lines 21 to 32 to verify the historical estimate of the quantum of mineralisation and investigate the extension of the mineralisation beyond Adit 7 (Table 4.4 & Table 4.5). The drill holes were initiated with PQ-size core (85 mm diameter) near the surface, followed by HQ-size core (63.5 mm diameter), and further downhole, NQ-size core (47.6 mm diameter) was used. A total of 18 diamond drill holes were drilled (5,075.1 m), with one hole being lost and three of them being redrilled as 'twinned holes' due to the premature loss of the original holes. The average core recovery rate was 95%. All the core samples were logged and photographed for geological and geotechnical (rock quality designation, RQD) analysis. The remaining halved cores were preserved in a warehouse in Almaty (Figure 4.8). Collars of BD surface drilling are shown in Figure 4.9.

Table 4.4: Details of BD drill holes

Hole ID	X	Y	Z	Azimuth	Dip	EOH
				(°)	*(°)*	*(m)*
BD21-1	14335992	4824443	1610	121.5	-85	250
BD23-1A	14335977	4824529	1620	121.5	-45	290
BD25-1	14336043	4824637	1654	121.5	-75	490.3
BD25-2	14336107	4824609	1654	121.5	-75	490
BD25-3	14336166	4824568	1660	121.5	-75	319
BD25-3A	14336165	4824568	1660	121.5	-75	383
BD27-1	14336219	4824671	1697	121.5	-75	322.8
BD27-2	14336220	4824671	1697	121.5	-60	500
BD29-1	14336304	4824673	1702	121.5	-66	54
BD29-1A	14336356	4824645	1701	121.5	-65	286.5
BD30-1	14336398	4824731	1732	121.5	-67	282
BD30-1A	14336398	4824732	1732	121.5	-67	424

Hole ID	X	Y	Z	Azimuth	Dip	EOH
				(°)	(°)	(m)
BD31-1	14336439	4824762	1734	121.5	-85	425.5
BD31-2	14336438	4824762	1735	121.5	-65	119.3
BD31-2A	14336438	4824762	1735	121.5	-65	33.9
BD31-2B	14336618	4824657	1685	301.5	-47	70.8
BD32-1	14336473	4824802	1732	121.5	-80	334

Source: BD

Note: EOH — end-of hole.

Table 4.5: Redrilled (twinned) holes

Original Hole ID	Depth	Twinned Hole ID	Depth
	(m)		(m)
BD23-1	LOST	BD23-1A	290
BD25-3	319	BD25-3A	383
BD30-1	282	BD31-A	424
BD31-2	119.3	BD31-2A	33.9

Source: BD

4.4.6 Sample preparation and assaying

In the FSU program, the Central Chemical Laboratory of the Regional Geology Department in South Kazakhstan was the primary analytical facility used for sample preparation and assay. To ensure quality control, umpire laboratory checks were also conducted in the Moscow Central Laboratory in the former Soviet Union.

The samples underwent a series of preparation steps. They were first crushed and pulverised to achieve a grain size of 1 mm. The assay was then performed using the wet chemistry method. A 250 g portion of the samples was heated to 600°C in a porcelain crucible and mixed with hydrochloric acid to decompose elements that could interfere with the analysis. The resulting solutions were combined with 20 mL of sodium peroxide, 30% potassium thiocyanate, and 1.5% titanium trichloride. Once the color development process was complete, the solutions were transferred to a 20 mm cuvette for photoelectric colorimetry analysis. To compare the color intensity, a standard solution of 0.0001 g/mL WO_3 (equivalent to 100 ppm or 0.01% WO_3) was used.

In the BD program, the drill cores were halved using a diamond saw. All samples were submitted to ALS Kazlab LLP, Kazakhstan, for preparation.

All trench and adit channel samples, together with approximately 60% of the drill samples, were sent to ALS Chita, Russia (ALS Chita), for analysis. Approximately 20% of the drill samples were sent to ALS Guangzhou, China (ALS GZ), and the remaining 20% were sent to Intertek Beijing (Intertek). BD reasoned that the atypical practice of using three principal laboratories would expedite the entire program.

In ALS Kazlab, all samples were pulverised to 85% <75 µm. The prepared samples sent to ALS Chita were initially assayed using ME-ICP61 procedure where tungsten digestion is partial and tungsten content is reported as tungsten percentage (W%). All samples with values greater than 0.03% W were then re-run using the total digestion, fusion ME-ICP81x procedure, in which 0.1 g prepared samples were mixed with 1.1 g sodium peroxide flux and fused in a zirconium crucible heated to 700°C. The resulting melt is cooled and dissolved in dilute hydrochloric acid. This solution is then analyzed by ICP-OES (inductively coupled plasma-optical emission spectroscopy) and the results are corrected for spectral inter-element interferences. Total tungsten (W) is reported as per cent tungsten within the range of 0.01% W to 30% W. ALS GZ used the same procedure as ME-ICP81x but reported in WO_3 %. The Intertek tungsten procedure was also a sodium peroxide fusion (but in a nickel crucible), with per cent tungsten results reported from ICP-OES.

SGS Vostok Laboratory, Russia (SGS), was used as the umpire laboratory, and applied the same analytical procedure as ALS Chita, under the code ICP90A, and the result was reported in W ppm.

4.4.7 Sample preparation and assaying

In the FSU program, a total of 195 samples and six bulk samples were described for obtaining the average density value for the mineralised sandstone and sandstone-shale unit. An average specific gravity value of 2.74 t/m^3 was used for the host sediment to the mineralisation.

In the BD program, samples for density measurement were collected at 10 m intervals within each drill hole. These samples were measured by the water immersion method. In total, 403 samples were collected from the sandstone and sandstone-shale unit that hosts the mineralisation, and 37, 4 and 2 samples were collected from the granite, diabase and lamprophyre units, respectively, all of which are considered barren (Table 4.6).

Table 4.6: Specific gravity of major rock types

Rock type	Average specific gravity value (t/m^3)	Number of samples
Sediment	2.74	403
Granite	2.64	37
Diabase	2.79	4
Lamprophyre	2.72	2

Source: BD

4.4.8 Quality assurance and quality control

In the FSU program, pulp duplicates and inter-laboratory checks were used as part of the quality assurance and quality control (QAQC) procedures. No blanks or certified reference materials (CRMs) were employed.

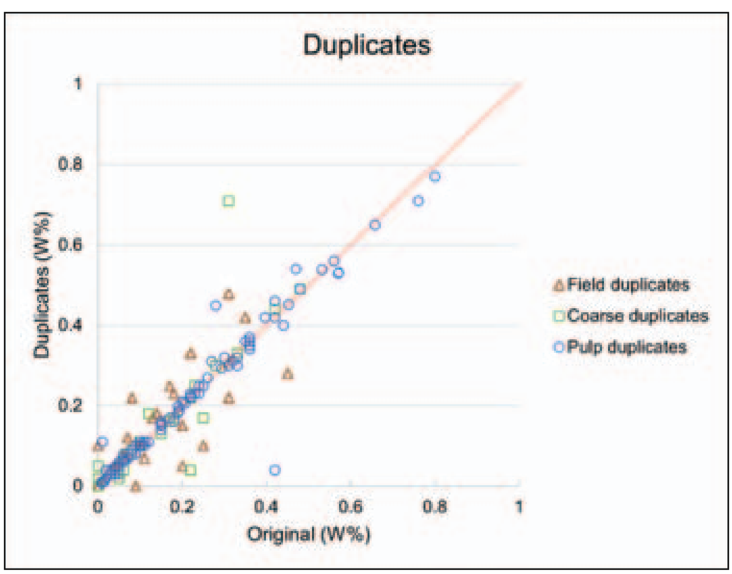
The BD program comprised several QAQC protocols. One pulp duplicate, one blank and one CRM were included at rate of approximately every 30 samples. Additionally, during the early trench and adit resampling, one field duplicate and one coarse duplicate were inserted to assess the homogeneity of mineralisation.

Duplicate

In the FSU program, 1,946 pulp duplicates were assayed, equivalent to 6.35% of all samples. The results demonstrated a good level of reproducibility.

In the BD program, a total of 25 field duplicates, 25 coarse duplicates and 106 pulp duplicates were assayed. The field duplicates showed relatively poor reproducibility, primarily due to the heterogeneity of mineralisation. However, once the samples were crushed, ground and homogenised, the performance of coarse and pulp duplicates improved, resulting in better reproducibility. There was no evidence of significant bias in the results (Figure 4.11).

Figure 4.11: BD duplicates

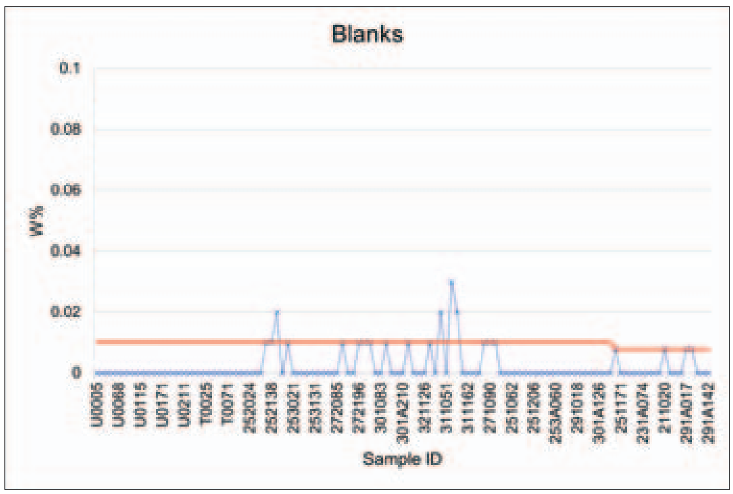


Source: modified after BD

Blanks

In the BD program, a total of 113 blanks were inserted. Most of the samples (all except four) reported values of ≤0.01% W, which is just at the detection limit. Three of the samples reported results of 0.02% W or 0.03% W, slightly above the detection limit (Figure 4.12). These findings provide strong assurance that no contamination was introduced during the sample preparation and assay processes.

Figure 4.12: BD blanks



Source: modified after BD

Note: Solid red line represents the detection limit.

Standards

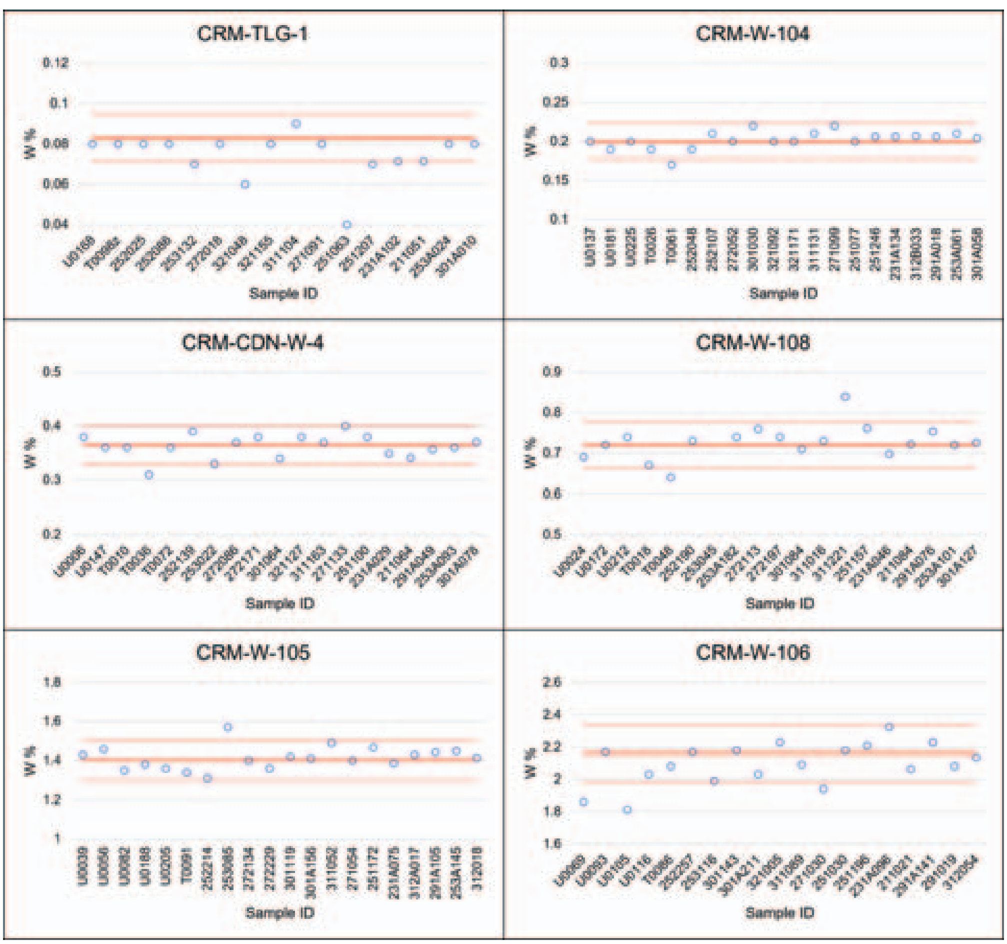
In the BD program, six CRMs with varying tungsten concentrations were employed. Table 4.7 presents the expected values along with their ±3 standard deviations (SD). A total of 113 CRMs were incorporated into the sample stream. Most of the results fell within the acceptable range of ±3SD. While a few CRM results deviated from the expected values, typically showing lower readings, there was no clear evidence of significant bias overall (Figure 4.13).

Table 4.7: List of CRMs used in the BD program

Name of CRM	Certified value *(W%)*	Standard deviation
CRM-TLG-1	0.083	0.004
CRM-W-104	0.20	0.0076
CRM-CDN-W-4	0.366	0.012
CRM W-108	0.72	0.0185
CRM W-105	1.40	0.0341
CRM W-106	2.16	0.0583

Source: BD

Figure 4.13: BD CRMs



Source: modified after BD

Note: Solid red line represents the certified value while the dotted lines indicate the ±3SD levels.

Independent laboratory checks

In the FSU program, a total of 2,211 samples, accounting for 7.45% of the original samples were sent to Moscow Central Laboratory for inter-laboratory checks. SRK noted that the results showed a high level of reproducibility in the assay results.

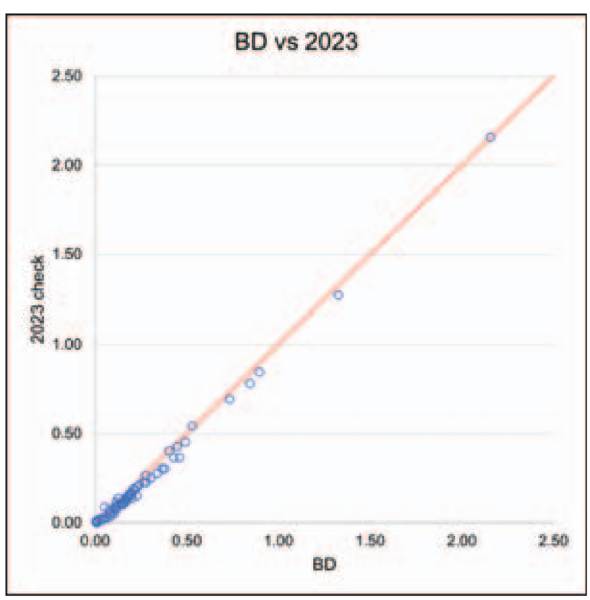
In the BD program, round robin tests among the three laboratories engaged (ALS Chita, ALS GZ and Intertek) were performed and SGS served as the umpire laboratory. A total of 182 pulp samples were re-assayed at SGS and showed good correlation.

4.4.9 SRK verification

SRK visited the Project site in July 2018. This site visit involved examining the historical exploration work conducted during the FSU and BD programs. Surface trenches and drill hole collars were inspected. Channels collected along underground adits and trenches cut were also examined. The stored drill cores and pulp samples from the BD program were reviewed in a warehouse in Almaty. SRK conducted spot-checks on some of the drill core intervals.

In November 2022, SRK independently collected 72 pulp samples from the BD program undertaken in 2014-2015. These pulp samples were the remains of samples obtained from trenches, adits and drill holes taken at various locations and with different WO_3 grades. The samples were submitted to ALS Karaganda in Kazakhstan for sample preparation and then dispatched to ALS Ireland for analysis using the ME-ICP61 and ME-ICP81x methods, which are the same analytical methods used in 2014. The results of these 72 check samples show very good reproducibility compared to the 2014 results (Figure 4.14).

Figure 4.14: SRK check samples



Source: SRK

4.4.10 Conclusion

BD program

The QAQC results of the BD program as well as a review of the sampling procedures and preparation indicate that there are unlikely to be significant issues with the sample preparation procedures. The blank results suggest that there are no contamination issues. The data from the CRMs fall within the ±3SD range of the expected values and do not exhibit any systematic bias. Independent check sampling conducted by SRK in 2022 also demonstrated good reproducibility of the results. The density measurement procedures are appropriate, and the average density value is the same value determined by the FSU. Overall, SRK considers the assay and density data obtained during the BD program to be reliable and suitable for Mineral Resource estimation.

FSU program

For the FSU program, the core recoveries for the surface drilling were poor, ranging from 37% to 75%, with an average of 55%, and underground drilling was conducted across three adit levels, with the core recovery of the drill holes ranging from 31% to 96%. SRK considers the drilling results are of insufficient quality for Mineral Resource estimation, but they can be used for grade shell modeling.

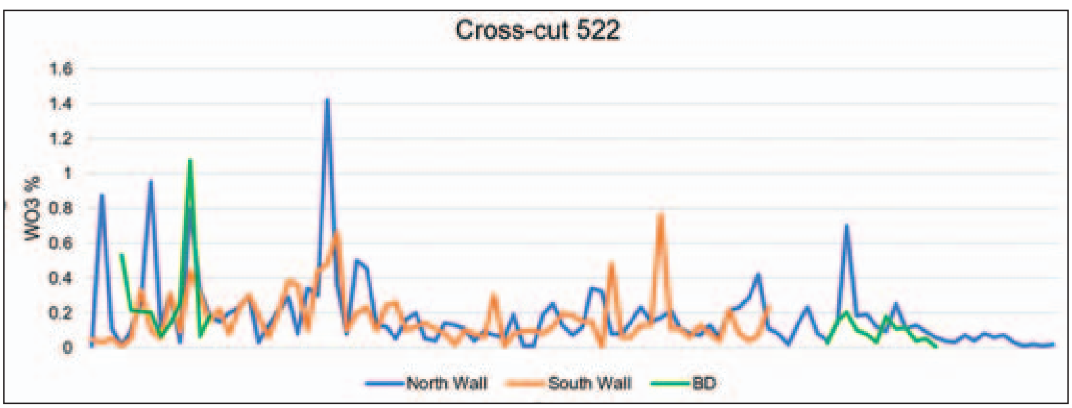
The pulp duplicate and inter-laboratory results were satisfactory, but no blanks or CRMs were used in the analysis. The sample collection and preparation procedures described for the expansive exploration program appear to be appropriate, and the relicts of the adits and trenches were also observed. However, samples were not preserved from the FSU program for any check assay. SRK therefore conducted an analysis of the BD and FSU datasets, as well as a comparison between the two datasets.

4.5 FSU and BD programs data analysis

4.5.1 FSU north and south walls

In the FSU program, the north wall of each cross-cut was sampled along its entire length, and subsequently, most of the mineralised intervals in the opposite south wall were also sampled. Figure 4.15 presents an example of sampling results on the north and south walls along Cross-cut 522 in Adit 5 as well as the BD check sampling results. The results indicate that the presence of mineralisation and its trend can be confirmed through opposite wall sampling in the FSU program, as well as sampling conducted by BD in its program. However, the results also highlight the nature of heterogeneity or variation over short distances of the mineralisation. The poor reproducibility of check sampling results is particularly noticeable in the high-grade intervals.

Figure 4.15: Comparison of different assay data along Cross-cut 522

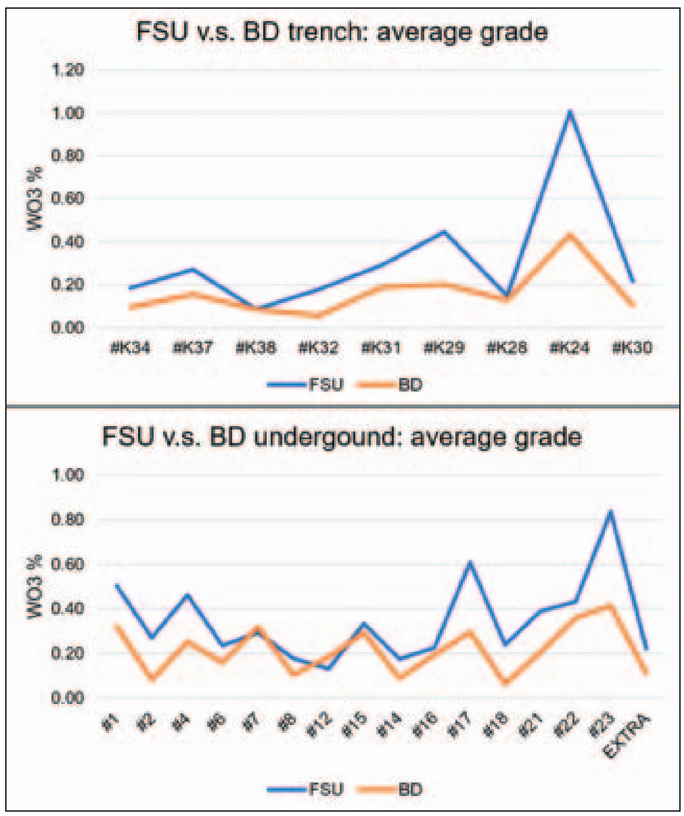


Source: GKZ, SRK analysis

4.5.2 FSU and BD check sampling

The BD program also involved sampling representative intervals in the trenches and adits excavated during the FSU program. The average grades of samples collected in these two programs are presented in Figure 4.16. The results show that the samples from the FSU program generally have higher average grades compared to the check samples collected during the BD program.

Figure 4.16: Comparison of average grades in FSU and BD trench and adit samples



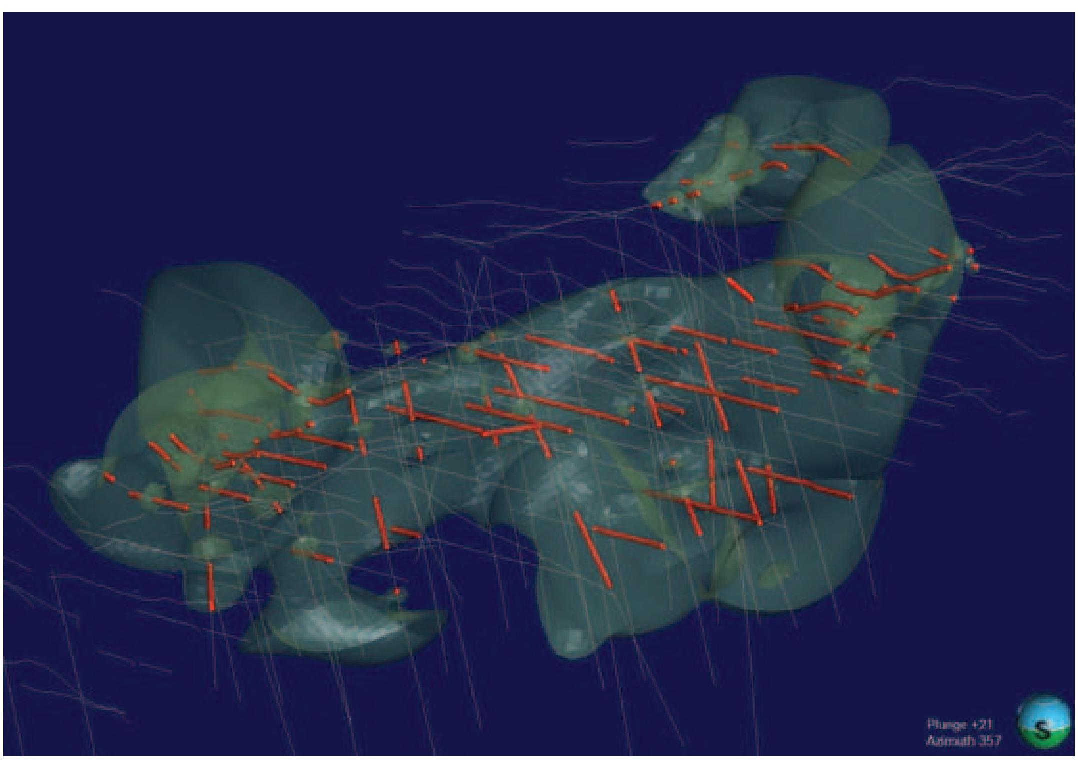
Source: GKZ, BD, SRK analysis

4.5.3 FSU and BD data comparison

Given the heterogeneity of the mineralisation, SRK's data comparison involved several steps:

- 0.08% WO_3 grade shells were created by using the combined unfiltered FSU and BD data.
- For the FSU program, a simplified dataset was prepared by excluding the south wall data and drilling data. The south wall data were used for check sampling of the mineralisation and were excluded to avoid duplication. All drilling data were excluded due to their poor recovery.
- All BD data were used.
- The simplified FSU and BD data were composited to 2 m lengths.
- Buffers were generated within a 50 m radius of the BD and FSU sampling locations.
- The composited samples within the intersecting volumes of the 0.08% WO_3 grade shells and the buffers were evaluated (Figure 4.17).

Figure 4.17: Intersection grade shell and >0.08% WO_3 composites in the comparison



Source: SRK

Table 4.8: Basic statistics for composites of BD and FSU datasets

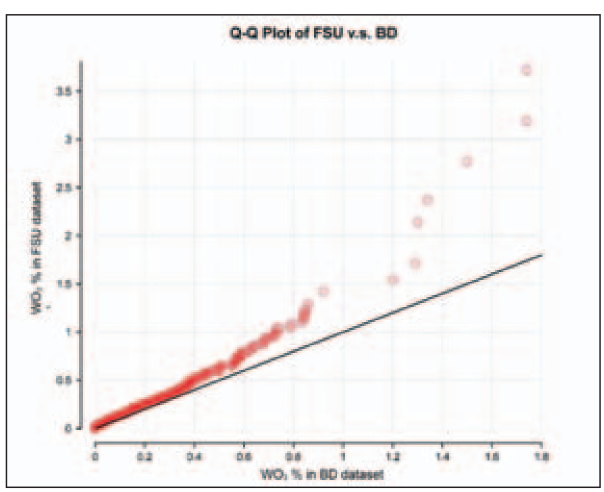
	BD	FSU
No. of samples	582	1,601
Length (m)	1,083.7	2,987.1
Min. WO_3 %	0.00	0.00
Mean WO_3 %	0.21	0.28
Max. WO_3 %	1.74	3.72
Standard deviation	0.23	0.35

Source: SRK

The basic statistics of the two datasets are presented in Table 4.8. Figure 4.18 shows the FSU and BD datasets on the quantile-quantile (Q-Q) plot. There is an apparent systematic positive bias, starting at approximately 0.45% WO_3 for the FSU dataset or 0.37% WO_3 for the BD program.

The pulp duplicates and inter-laboratory checks conducted during the FSU program both yielded reasonable results. It is speculated that the bias could be attributed to the sample preparation of relatively high-grade samples or issues with the analytical procedures involving wet chemistry, such as the precision of the colorimeter or standard solution. In the BD report, a similar positive bias of the FSU program samples was also identified, and the authors interpreted it as being due to an issue related to sample preparation for high-grade samples (Figure 4.18).

Figure 4.18: Q-Q plot of FSU and BD datasets



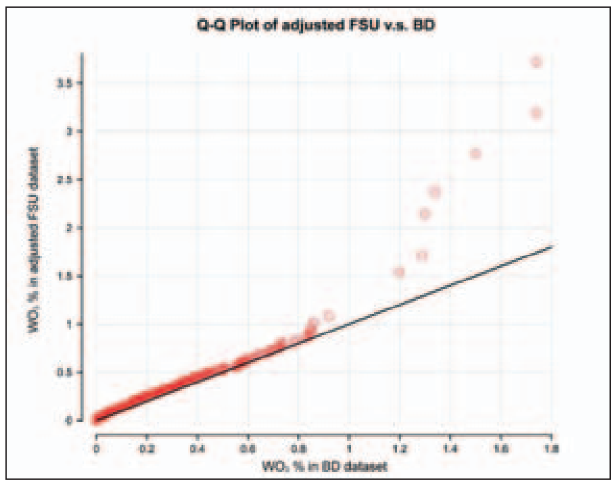
Source: SRK

4.5.4 FSU and BD data adjustment

To adjust the apparent positive bias of the data collected from the FSU program, a regression formula between 0.45% and 0.90% WO_3 (FSU data) was established, resulting in the equation 'y = 0.6364x + 0.1341'. No adjustments were made for data >1.5% WO_3 as all such data are expected to be subject to grade-capping in the Mineral Resource estimation process.

The Q-Q plot of the adjusted data is presented in Figure 4.19.

Figure 4.19: Q-Q plot of comparison dataset after adjustment



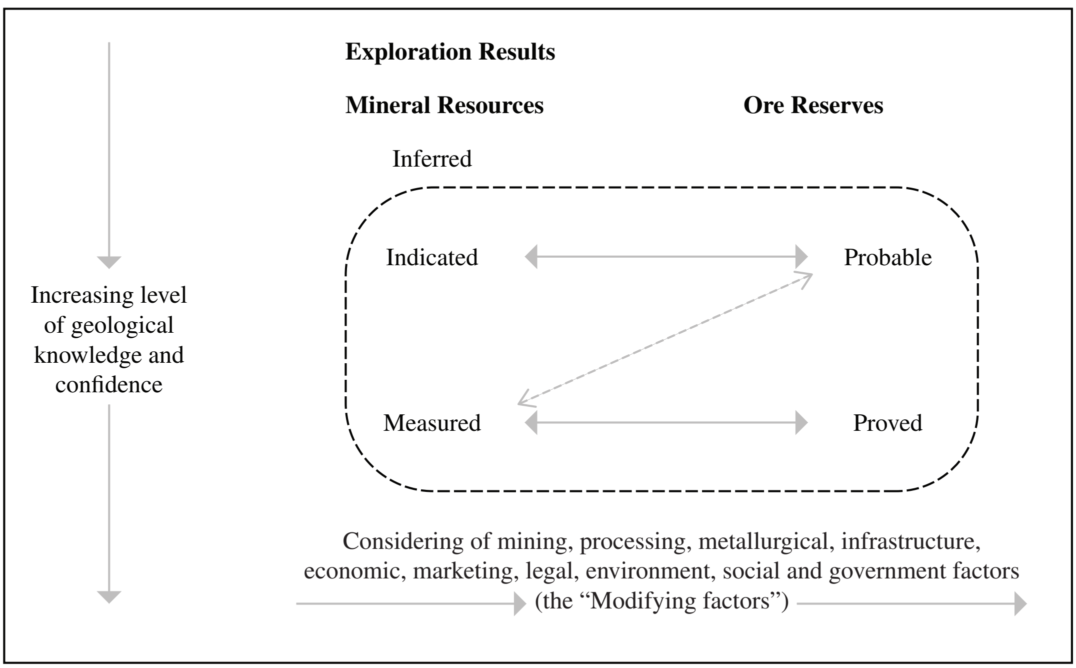
Source: SRK

5 MINERAL RESOURCE ESTIMATION

5.1 Introduction

The JORC Code states that '*A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction*'. Mineral Resources are classified as Measured, Indicated and Inferred according to the degree of geological confidence (Figure 5.1).

Figure 5.1: General relationship between Exploration Results, Mineral Resources and Ore Reserves



Source: JORC Code, 2012

The following sections summarize the key assumptions, parameters and methods that were used to estimate the Mineral Resources for the deposit.

5.2 Mineral Resource estimation procedures

Leapfrog software (version 2023.1) was used to generate the geological and mineralisation models used to construct the geological solids, prepare assay data for statistical/geostatistical analysis, construct the block model, estimate WO_3 grade and tabulate Mineral Resources.

The estimation methodology involved the following procedures:

- Database compilation, verification as well as adjustment
- Definition of a Resources Domain by grade shell
- Construction of wireframe models for the other domains, including fault network, granite, sediments and the dykes
- Exploratory data analysis (compositing and capping) and geostatistical analysis using variography
- Block modeling and grade interpolation
- Mineral Resource estimation and validation
- Assessment of 'reasonable prospects for eventual economic extraction' and selection of appropriate reporting cut-off grades
- Classification of the Mineral Resources.

5.3 Historical estimation

In addition to the historical quantum of mineralisation estimate during the FSU program, BD prepared a Mineral Resource estimate in accordance with the JORC Code (2012). Several Chinese design institutes have also prepared quantum of mineralisation estimates according to the Chinese standards. The results of these estimation exercises are presented in Table 5.1.

SRK has conducted a review of the Mineral Resource estimate prepared by BD in 2015. The review revealed that BD noted the presence of the apparent bias in the historical data, but did not address the issue in its Mineral Resource estimate. Furthermore, SRK identified a flaw in the geological model created by BD: the model incorporated a significant amount of unmineralised material within the orebody domain. As a result, the resulting Mineral Resource exhibits a high ore tonnage, but a low average WO_3 grade. Based on these findings, SRK considers the Mineral Resource estimate is unreliable.

Table 5.1: Historical resource estimates

Year	Reporting parties	Cut-off grade	Volume	WO_3 grade	Contained WO_3
			(Mt)	*(%)*	*(kt)*
	Quantum of mineralisation estimate				
1974 . . .	GKZ	0.05%	169	0.180	309
2015 . . .	Changchun Gold Design Institute	0.12%	126	0.226	285
2020 . . .	ENFI	0.08%	124	0.216	267
	Quantum of mineralisation estimate within pit shell				
1974 . . .	GKZ	0.05%	133	0.182	242
2015 . . .	BD	0.08%	197	0.159	312
2015 . . .	Changchun Gold Design Institute	0.12%	109	0.229	250

Source: compiled by SRK

Note: Numbers are rounded.

5.4 Database compilation and validation

5.4.1 Topographic wireframe

Pre-stripping was completed in September 2023 and mining operations began in November 2024. A regular topographical survey was conducted using the GPS-RTK method. The topography, surveyed in December 2023, was provided by Jiaxin. The topography data were imported and checked in Surpac. SRK was also provided with the topography prior to the commencement of any construction activities.

5.4.2 Estimation datasets

The dataset used for Mineral Resource estimation purposes include all FSU and BD data except the drilling data from the FSU program (Table 5.2). The FSU data have been adjusted as described in Section 4.5.4.

Table 5.2: Summary of database used for Mineral Resource estimation

Method of sampling	Profiles	Assay records
	(m)	
FSU Trenches	19,943	8,452
FSU Adits	17,576	7,618
BD Trench resamples	152	76
BD Adit resamples	362	181
BD Drilling	5,075.1	2,474

Source: compiled by SRK

5.5 Wireframe modeling

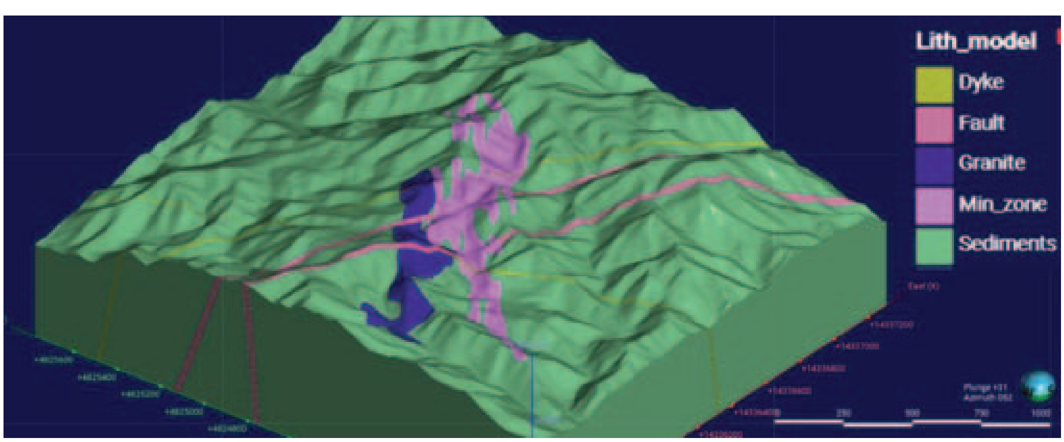
For the geological models of granite, sediments, faults and dykes, SRK delineated the polylines based on the section and levels interpretation maps of the FSU program. From these polylines, the geological model was constructed in Leapfrog.

The grade shells were built using a radial basis function (RBF) in Leapfrog software (Table 5.3). A 0.08% WO_3 threshold was used to define the mineralised volume. There is an apparent break in the histogram of raw data — at 0.08% WO_3. In addition, sectional interpretation showed that using a threshold lower than 0.08% WO_3 will incorporate a large amount of barren materials such as granite in the grade shells. SRK conducted testing and adjustments through various scenarios, using all available information (trenches, adits and drill holes), as well as sections and level plan maps, to ensure the final grade shell accurately represents the mineralisation continuity. The complete geological model for the deposit area is shown in Figure 5.2. The Resources Domain outlined by grade shells is presented in Figure 5.3.

Table 5.3: Parameters used for grade shells generation by RBF

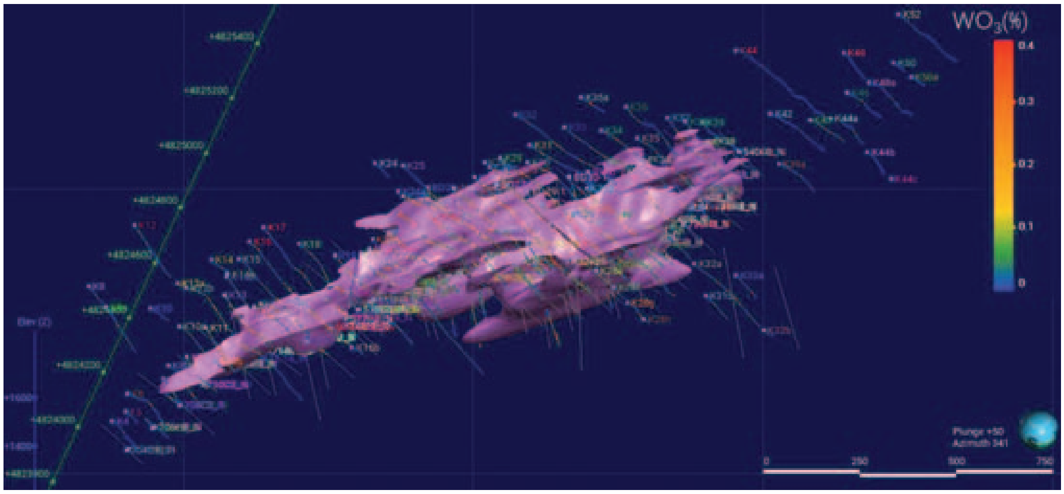
Composite length	6 m		
Global Trend	**Dip**	**Dip Azimuth**	**Pitch**
Directions	80°	310°	0°
	Maximum	**Intermediate**	**Minimum**
Ellipsoid Ratios	5	5	1
Interpolant	Spheroidal		
Sill	0.04		
Nugget	0.01		
Base Range	300		

Figure 5.2: Geological model defined by SRK



Source: SRK

Figure 5.3: Resources Domain defined by SRK



Source: SRK

5.6 Exploratory data analysis

Table 5.4 shows the exploratory data analysis for WO_3 for the estimation dataset listed in Table 5.2, including all BD raw samples and adjusted FSU samples, as discussed in Section 4.5, within all domains.

Table 5.4: Basic statistics for WO_3 in the estimation dataset within all domains

Item	All data
Number of samples	18,786
Minimum value	0.00
Maximum value	5.11
Mean	0.13
Variance	0.05
Standard Deviation	0.22
Coefficient of variation	1.64

Source: SRK

5.6.1 Compositing

An underlying assumption for many geostatistical methods of grade estimation is that the input grade data are on a constant 'support' (mass and shape). Therefore, before conducting interpolation, it is normal practice to composite the samples to a consistent length.

SRK conducted a sample composite analysis to determine the most suitable composite length for grade interpolation. This analysis involved examining variations in composite length and the minimum composite lengths for inclusion. The analysis compared the average grade obtained from composites against the length-weighted average grade of the individual raw samples. Additionally, it assessed the percentage of total sample length that would be excluded when applying the minimum composite length.

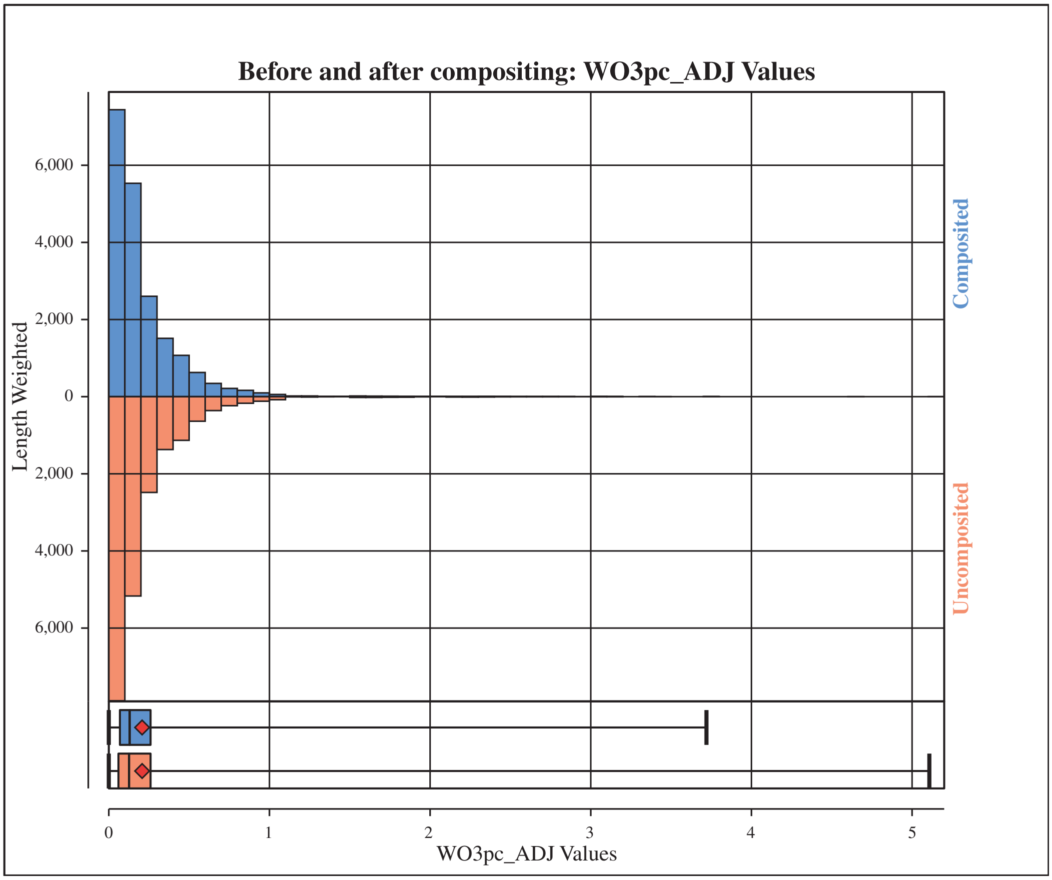
For the Resources Domain (grade shell), the raw samples were composited at intervals of 2.0 m. A minimum coverage of 0.5 m was selected to ensure sufficient representation of the mineralisation was achieved. The basic statistics and histograms for each domain are provided in Table 5.5 and Figure 5.4, respectively.

Table 5.5: Basic statistics for composite values — Resources Domain

Item	Raw data	Composited
Number of samples	10,017	9,919
Minimum value	0.00	0.00
Maximum value	5.11	3.72
Mean	0.21	0.21
Variance	0.07	0.06
Standard Deviation	0.26	0.24
Coefficient of variation	1.26	1.18

Source: SRK

Figure 5.4: Frequency statistics on composites and raw samples — Resources Domain



Source: SRK

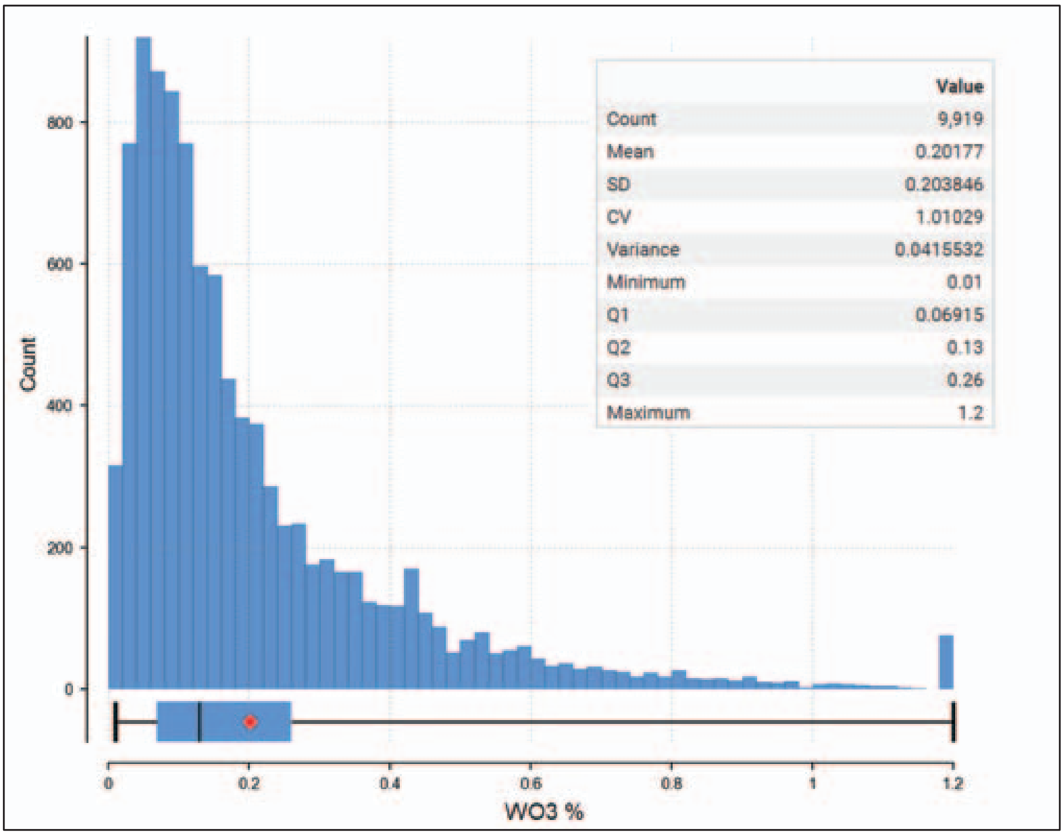
5.6.2 Capping

For some estimates, grade capping may be appropriate to control the influence of the highest-grade samples or composites. After reviewing the composited samples, SRK elected to apply capping to the current estimate. To determine the appropriate capping levels, SRK performed an analysis of the grade distributions using cumulative frequency analysis. The objective of this analysis was to identify the grades at which samples significantly impact the local estimation and exhibit an extreme influence.

Based on the analysis of cumulative frequency for all composites, a grade capping level of 1.2% WO_3 was used. The statistics and histogram of capped composites are presented in Figure 5.5.

In general, SRK aims to limit the impact of the capping to less than 5% change in the mean value. However, in cases with extreme outliers, the change in the mean exceeds 5%. In this Project, a total of 74 composites scattered throughout the deposit are capped, equivalent to 0.8% of total composites. The average grade of uncapped composites is 0.207% for WO_3, while the average grade of capped composites is 0.202%. The difference therefore falls within the acceptable 5% limit on change in mean value.

Figure 5.5: Capped composites frequency



Source: SRK

5.7 Variogram modeling

Variogram modeling for the Resources Domain was conducted using Leapfrog Edge. The variogram fitting process was completed in the following steps:

- The nugget was determined by the downhole variogram.
- Based on 3D visualization of grade data, the plane of maximum continuity of mineralisation was interpreted as dipping 80° towards 315°.

- Within this plane, the direction of maximum continuity was selected as the major axis of the variogram anisotropy ellipsoid.

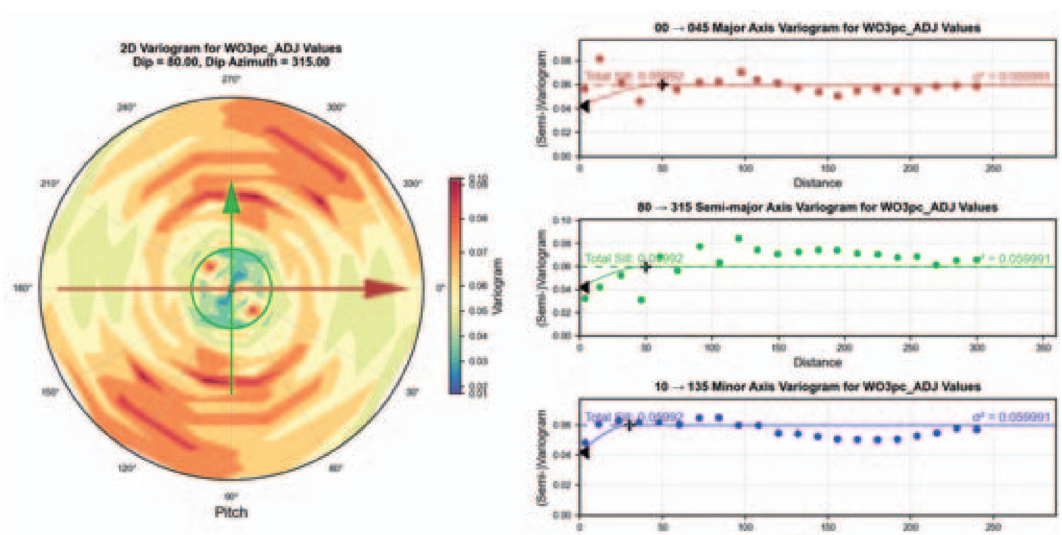
- The perpendicular direction within the plane was taken as the semi-major axis of the anisotropy ellipsoid.

- The direction perpendicular to the plane was used as the minor axis of the anisotropy ellipsoid.

- The variogram model was set to fit the three principal directions and checked against other directions.

Figure 5.6 shows an example of the variogram map and fitted variogram model of the Resources Domain.

Figure 5.6: Variogram map and fitted model — Resources Domain



Source: SRK

5.8 Block model and grade estimation

5.8.1 Block model parameters

SRK produced the block models for all Resources Domains with dimensions of 10 m × 10 m × 5 m (East × North × Elevation) in Leapfrog Edge, and no sub-blocking and rotation has been allowed. The details of the block model origin and local dimensions are shown in Table 5.6.

Table 5.6: Summary of block model parameters — Resources Domain

Dimension	Base point	Block size	Boundary size
		(m)	*(m)*
X	14,335,230	10	2,080
Y	4,823,490	10	2,290
Z	1,860	5	765

Source: SRK

5.8.2 Grade estimation

Block accumulation and true thickness values were interpolated using the Ordinary Kriging (OK) method. Quantitative Kriging Neighbourhood Analysis (QKNA) was used to optimize the estimation neighbourhood. During the grade estimation, the dynamic ellipsoid and multiple search runs were also applied.

The parameters used for the Mineral Resource estimation are summarized in Table 5.7.

Table 5.7: Parameters used for Mineral Resource estimation

			Variogram						Search distance		
Domain	Item	Run	Nugget	Sill	Major range	Minimum number of samples	Maximum number of samples	Drill hole sample limits	Major	Semi-major	Minor
					(m)					*(m)*	
Resources Domain . . .	WO_3	1	0.04	0.059	50	4	24	6	100	100	60
		2	0.04	0.059	50	2	18	6	150	150	90
		3	0.04	0.059	50	2	12	6	200	200	120

Source: SRK

5.9 Model validation

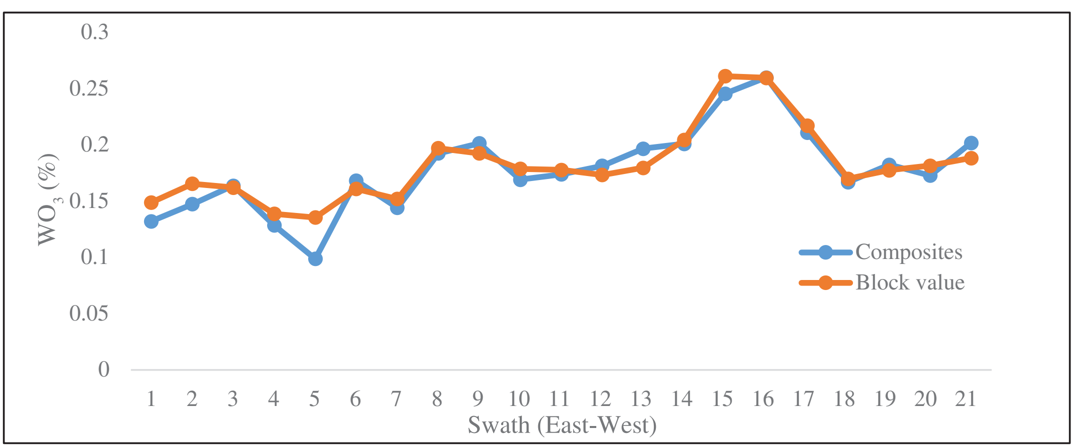
SRK completed block model validation to confirm the reasonableness of the estimation parameters and estimation results. SRK adopted the following methods for validation purposes:

- Visual validation of block grades against drill hole grades
- Trend analysis.

SRK performed visual validation of the longitudinal views and cross section view of the drill holes or channel grades and the block model grades. This validation process demonstrated good correlation between local block estimations and nearby samples, without excessive smoothing in the block model.

Figure 5.7 to Figure 5.9 show the swath plots of the Resources Domain, for example, in the east-north, north-south and elevation planes. Figure 5.10 and Figure 5.11 provide the 3D and cross section of Resources Domain, respectively. The global resource within the Resources Domain, limited by the topographic survey prior to pre-stripping, is presented in Table 5.8 and the grade-tonnage curve is presented in Figure 5.12.

Figure 5.7: Swath plot along east-west direction

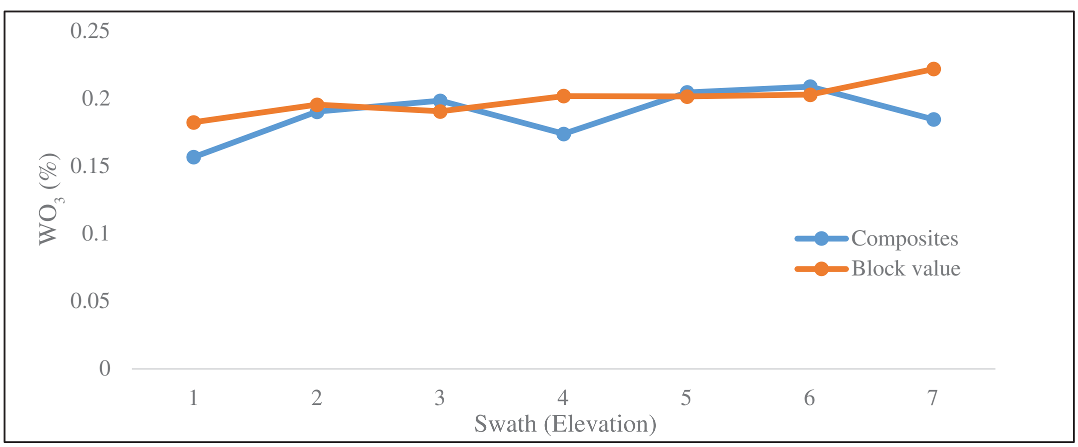


Source: SRK

Figure 5.8: Swath plot along north-south direction

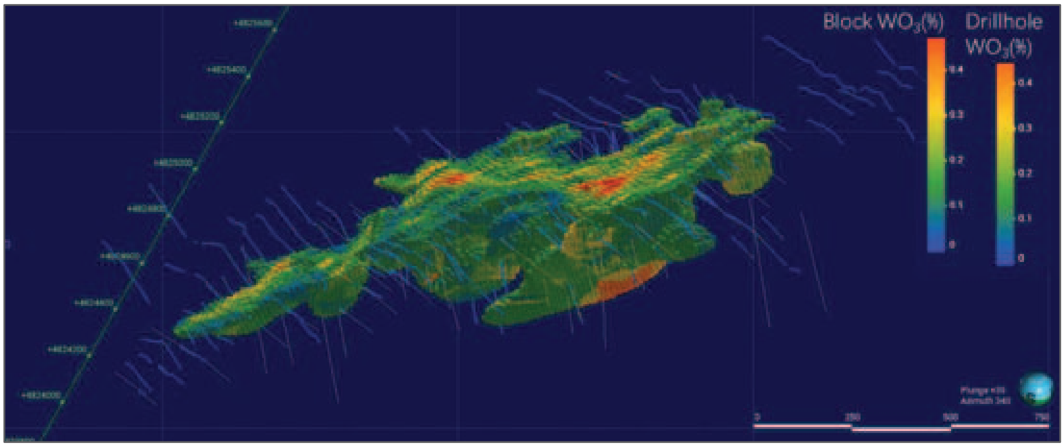
Source: SRK

Figure 5.9: Swath plot along elevation direction



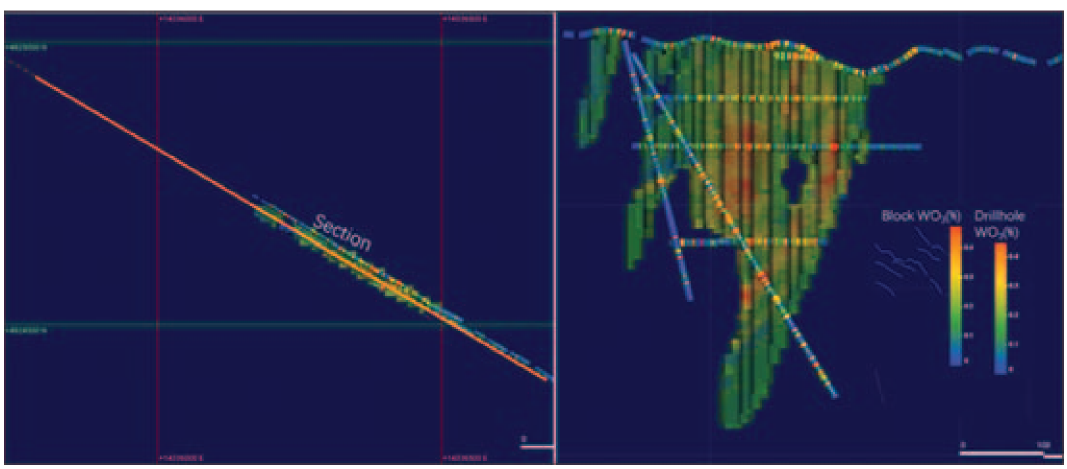
Source: SRK

Figure 5.10: 3D view — Resources Domain



Source: SRK

Figure 5.11: Cross section — Resources Domain



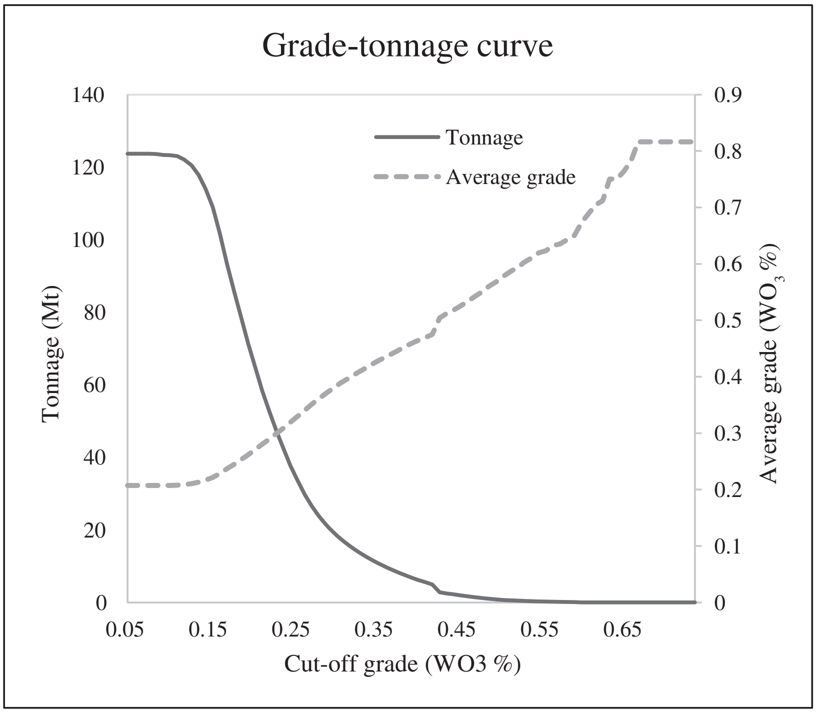
Source: SRK

Table 5.8: Global resource within the Resources Domain

Tonnage	Average grade	Contained WO_3
(Mt)	*(WO_3 %)*	*(kt)*
123.8	0.208	257.5

Source: SRK

Figure 5.12: Grade-tonnage curve



Source: SRK

5.10 Classification

Mineral Resource classification should consider several factors, including the confidence level in the geological continuity of the mineralised structures, the quality and quantity of exploration data supporting the estimates, and the geostatistical confidence in the tonnage and grade estimates. The classification criteria should aim to integrate these concepts to delineate consistent areas with similar Mineral Resource classifications.

The following items have been considered during classification of the Mineral Resources:

- Geological continuity and reliability of interpretation
- Sample support and exploration workings density
- Quality of the historical exploration campaign data and the validation results
- Grade continuity and variography
- Ordinary Kriging attributes (kriging variance, slope of regression, kriging efficiency).

The grade adjustment made the FSU component of the database meant that no Measured component could be justified.

The resulting classification was mainly dependent on proximity to the adit sampling (Table 5.9).

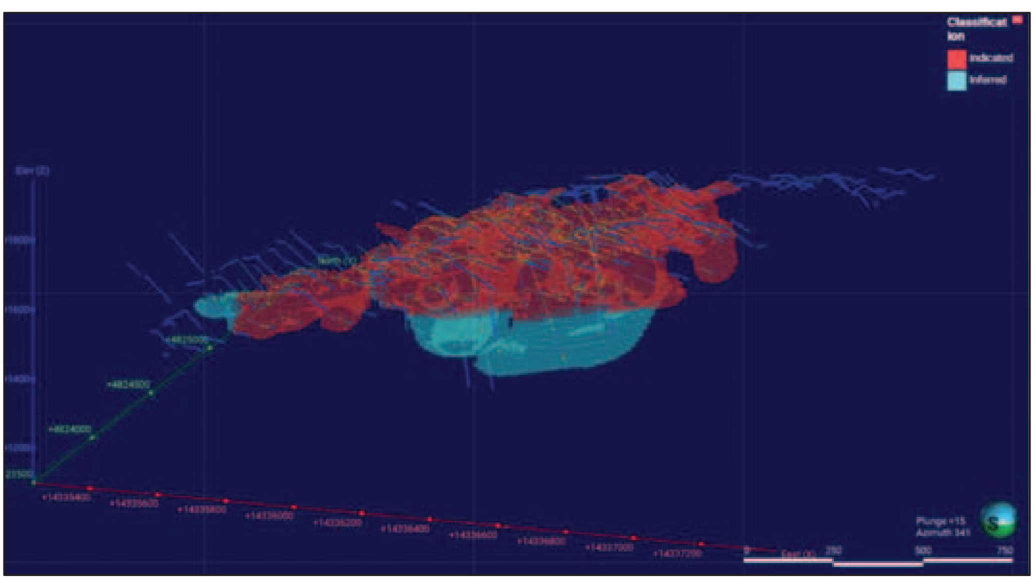
A 3D view of the classification distribution is shown in Figure 5.13.

Table 5.9: Mineral Resource classification criteria used in estimation

Category	Mineral Resource classification criterion
Indicated	Defined by the surface trenches, drill holes and adits
Inferred	Defined by surface trenches, and the deeper extension of adits and drill holes

Source: SRK

Figure 5.13: Mineral Resource classification in 3D view



Source: SRK

5.11 Mineral Resource Statement

5.11.1 Conceptual block cut-off grade

The conceptual economic cut-off grade for blocks is assumed to be 0.05% WO_3 based on the cut-off estimation presented in Table 5.10. In this context, the term 'cut-off' refers to the grade applied to the block model to determine the portion of the model that qualifies as Mineral Resources. The price of the concentrate (65% WO_3) is assumed 143,000 Chinese Renminbi (RMB).

Table 5.10: Cut-off estimation based on conceptual economic analysis

Item	Value	Unit
Mining cost	12	RMB/t
Processing cost	55	RMB/t
General and administrative cost	19	RMB/t
Total cost	86	RMB/t
Processing recovery	83	%
Price of concentrate (65%)	143,000	RMB/t
Cut-off (WO_3)	0.05	%

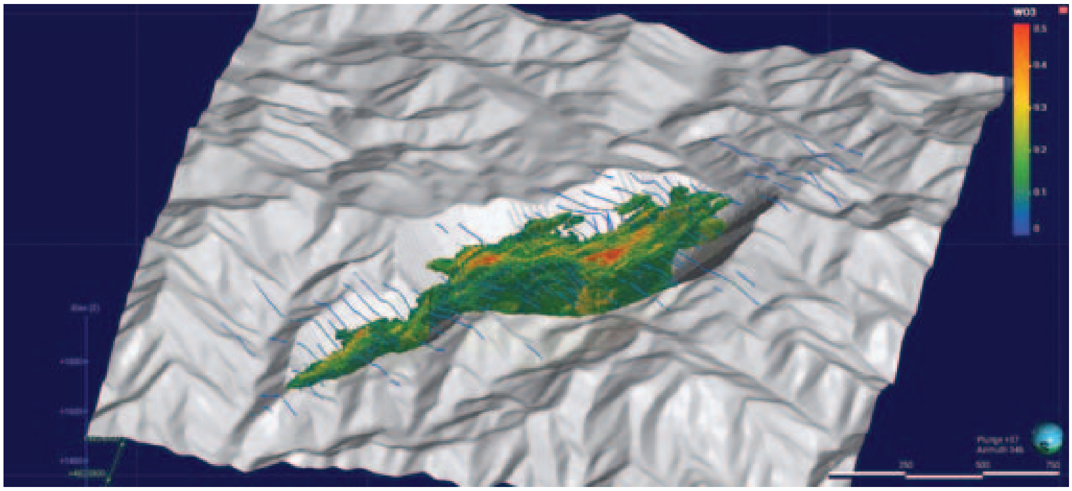
Source: Jiaxin, SRK

5.11.2 Mineral Resource Statement

To demonstrate satisfaction of the 'reasonable prospects for eventual economic extraction' (RPEEE) criterion, a pit optimization study using the Lerchs-Grossmann algorithm was undertaken in GEOVIA Whittle software. The operating parameters for the optimisations and cut-off grade estimates were based on the price, cost and recovery assumptions listed in Section 5.11.1, and a maximum pit slope of 46°. The Mineral Resource estimate is constrained by the pit shell corresponding to a revenue factor of 1. The pit optimization study considered Indicated and Inferred Mineral Resources.

The Mineral Resource estimate for the Boguty deposit constrained by conceptual pit and the latest topographic survey as at 30 June 2025 is shown in Figure 5.14 and Table 5.11.

Figure 5.14: Mineral Resource distribution within conceptual pit shell



Source: SRK

Table 5.11: Mineral Resource Statement — Boguty Project — as at 30 June 2025

Classification	Tonnage	Grade	Contained WO_3
	(Mt)	*(WO_3 %)*	*(kt)*
Indicated	95.6	0.209	200.3
Inferred	11.9	0.228	27.0
Total	**107.5**	**0.211**	**227.3**

Source: SRK

Notes:

1. The Mineral Resource estimate is effective as at 30 June 2025.
2. A cut-off grade of 0.05% WO_3 was applied to the Mineral Resource block model.
3. The Mineral Resources are reported with reasonable prospects for eventual economic extraction, using an RMB143,000 tungsten concentrate price (65% WO_3) within an optimized pit shell outline.
4. Mineral Resources that are not Ore Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
5. Mineral Resources are reported inclusive of Ore Reserves.
6. The Mineral Resource has been constrained by the latest topographic survey as at 30 June 2025.

Competent Person's Statement

The information in this Report that relates to Mineral Resources is based on information compiled by Dr (Gavin) Heung Ngai Chan who is a Fellow of The Australian Institute of Geoscientists. Dr Chan is a full-time employee of SRK Consulting (Hong Kong) Limited and has sufficient experience that is relevant to the style of mineralisation, type of deposit under consideration and to the activity which he undertakes to qualify as a Competent Person as defined in the 2012 edition of the *Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code).

5.11.3 Conclusion

The historical mineralisation estimates are presented in Table 5.1. The most recent mineralisation estimate was conducted by ENFI in 2020. The estimate was based on the Chinese standard and resulted in the declaration of 124 Mt of ore with an average grade of 0.216% WO_3, which is equivalent to 267 kt of contained WO_3. This estimation is similar to the global estimate prepared by SRK (Table 5.8), with a slight difference in average grade 3.7% lower, and contained metal approximately 2.7% lower. The differences are mainly related to the unresolved positive bias issue evident in the historical FSU data. Compared to the Mineral Resource (Table 5.11), the ENFI mineralisation estimate has a higher tonnage as evaluation against the RPEEE criterion is not a requirement of the Chinese standard.

A mineralisation estimate prepared by Changchun Gold Design Institute resulted in the declaration of 126 Mt of ore with an average grade of 0.226% WO_3 at a cut-off grade of 0.12% WO_3. This corresponds to a total of 285 kt of contained WO_3. SRK notes that a higher density of 2.8 t/m^3 was used compared to the density of 2.74 t/m^3 applied by SRK, as well as the values used in the FSU and BD programs. In addition, certain areas with limited mineralised intervals were interpreted as mineralisation. The capping applied during the estimation was up to 1.69% WO_3. All these factors together have resulted in an unreliable and inflated estimate.

The Mineral Resource estimate, in accordance with the JORC Code (2012), was prepared by BD with a cut-off grade of 0.08% WO_3. The estimate was also capped by a conceptual pit. SRK's Mineral Resource estimate exhibits a smaller tonnage but a higher average grade. The primary reason for this difference is the inclusion of a significant amount of unmineralised granite material in the BD resource model and the unresolved positive bias issue in the historical FSU data.

The mineralisation estimate conducted in the FSU program in 1974 was based on the polygonal method. The average grades and mineralisation thickness of the mineralisation blocks were determined using a weighted average of neighbouring drill intersections and underground adit samples. A cut-off grade of 0.05% WO_3 was applied, resulting in the declaration of 169 Mt with an average grade of 0.180% WO_3.

The main differences are primarily attributed to the positive bias issue with the data and the limitations of the two-dimensional polygonal estimation method in capturing the complexities of mineralisation. The polygonal estimation method is also a well-known historical approach with inherent limitations in terms of accuracy and reliability.

6 MINING

6.1 Introduction

The Project is designed as an open pit mining operation, consisting of conventional drill, blast, load and haul, with a planned ore feed of 4.95 Mtpa. Pre-stripping was completed in September 2023 and mining operations began in November 2024. As of June 2025, approximately 4.35 Mt of ore and waste had been excavated, including 2.04 Mt of material at a cut-off grade of 0.06% WO_3 (Figure 6.1).

Figure 6.1: Open pit area

Source: SRK site visit June 2025

SRK completed open pit optimization, mine design and production scheduling, and reported an Ore Reserve in accordance with the JORC Code (2012).

The work process included:

- Review the previous studies of the Project.
- Review the relevant study input assumptions and Modifying Factors.
- Make use of the latest Mineral Resource estimate and associated block model (Section 5) and the geotechnical slope input parameters from the recently completed geotechnical study.

- Undertake an open pit optimization study, taking cognisance of the updated input parameters and assumptions, including the verified Modifying Factors described in the Preliminary Design.
- Conduct an open pit design, ensuring an efficient, practical operation.
- Develop a production schedule based on the strategy proposed by both Company and previous studies.
- Report an Ore Reserve in accordance with the JORC Code (2012).
- Outline conclusions and make recommendations for the next steps of the work.

6.2 Technical studies

The Company has completed the following technical studies or engineering designs on the Project.

- Feasibility study on the Boguty tungsten mine, Kazakhstan based on 10,000 tpd mining capacity, compiled by Hunan Research Institute of Non-Ferrous Metals (HRI) on December 2017, hereinafter known as the **2017 FS**.
- Feasibility study on the Boguty tungsten mining and engineering project, Kazakhstan with 15,000 tpd mining capacity (10,000 tpd in the first 2 years), compiled by ENFI on August 2019, hereinafter known as the **2019 FS**.
- Preliminary design (Preliminary Design) on the Boguty tungsten mining and engineering project, Kazakhstan with 15,000 tpd mining capacity (10,000 tpd in the first 2 years), compiled by ENFI in June 2020, hereinafter known as the **Preliminary Design**.

The Preliminary Design is the most advanced of the studies, serving as the basis of the Project's construction. These studies all proposed a conventional open pit mining operation employing the same mining methodology (i.e. drill and blast, load and haul cycle), using a drill-shovel-truck mining fleet, as well as an auxiliary mining fleet (water trucks, graders, dozers, etc.). The Modifying Factors described in these studies are based on information classified by SRK as being at a PFS level, with the exception of the geotechnical study. The study lacked sufficient geotechnical detail and investigation to support the PFS classification. The principal concern relates to the proposed overall slope angles (OSAs), which are based on an evaluation of benchmark studies and not on detailed modeling and local analysis.

In addition, the Preliminary Design considers not only the Chinese resources located within the boundaries of the mining licence but also a portion of Chinese resources that extend beyond the mining licence boundary. While the initial stage of the open pit is confined to the mining licence boundary, the final shape of the open pit extends beyond the edge of the licence boundary. SRK notes that mine design and Ore Reserve estimates should be constrained to the current mining licence.

The mine plan proposed by the technical studies compiled by Chinese institutes are all based on Chinese resources classification and part (70%) of the Chinese classified 'Inferred' resources are included in the basis of the mine design. While the mining operation assumptions proposed by the Preliminary Design are acceptable under JORC Code guidelines, the ultimate open pit size and mine plan should be re-optimized and detailed against the revised Mineral Resources, and the Mineral Resources classification, as well as the updated hydrogeological and geotechnical study recommendations.

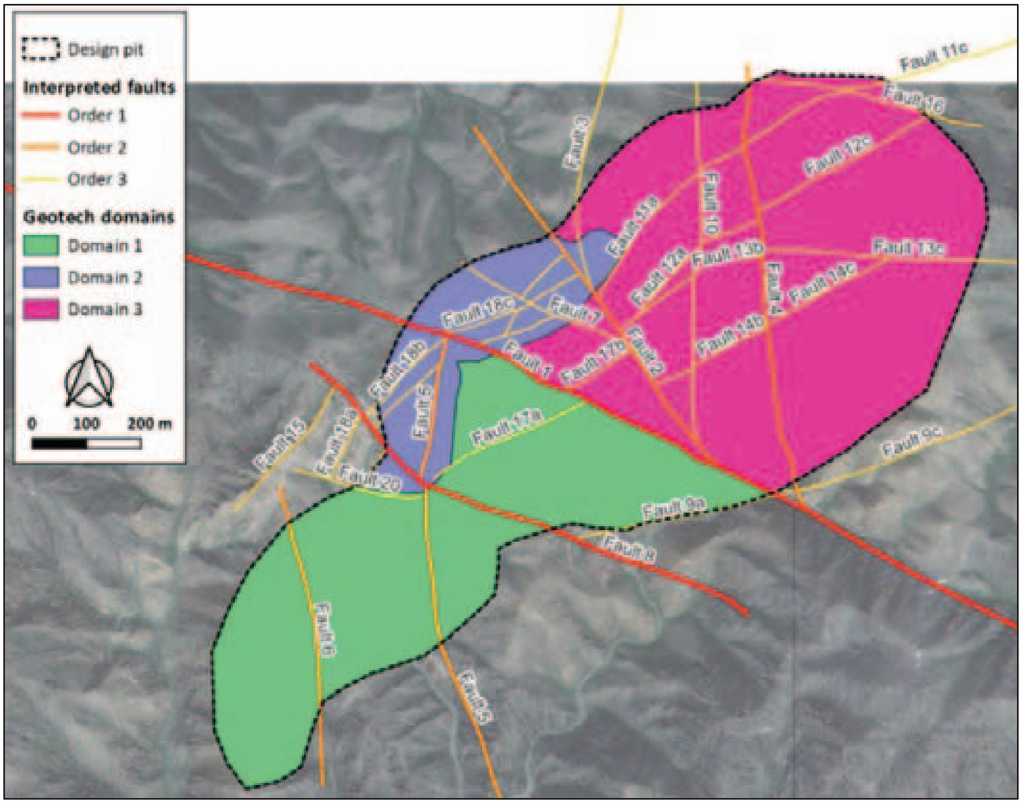
6.3 Geotechnical and hydrological study

To address the insufficiency of geotechnical data, the Company contracted SRK Kazakhstan in Almaty to conduct further geotechnical and hydrogeological studies to allow inputs for the mine design and development to a suitable standard and result in the overall study being classified as a PFS.

The study involved a combined hydrogeological and geotechnical drilling program, rock mass rating logging, and an acoustic televiewer (ATV)/optical televiewer (OTV) survey. The program began in March 2023 and was completed in August 2023. A report titled *Hydro-geotechnical Pre-feasibility study for Boguty Tungsten Project (GT PFS)* was submitted. Four drill holes (for 1,068 m) were completed. These drill holes were also hydrogeologically tested using either packer testing or falling head testing methods.

A combination of rock mass, structural and hydrogeological characterization has been used together with bench and berm kinematic assessments and inter-ramp and overall slope stability analysis to define the open pit slope design criteria for three geotechnical domains (Domains 1-3) that were defined based on the structural interpretation and geology of the Project area (Figure 6.2).

Figure 6.2: Geotechnical domains



Source: SRK

Based on the various stability assessments and available data, the recommended slope design configurations for the Project are presented in Table 6.1.

Table 6.1: Geotechnical slope design parameters

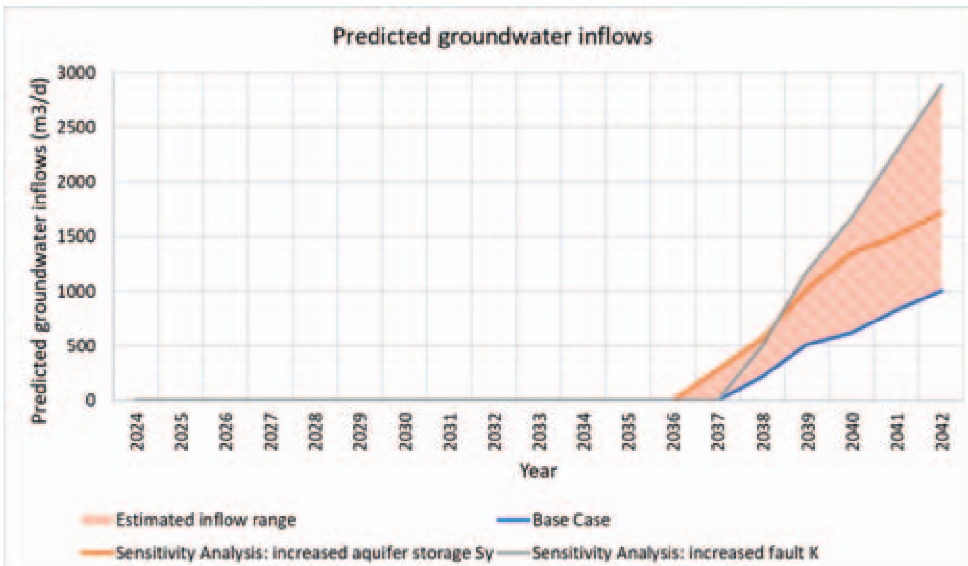
Domain	Design Sector	Azimuth (°)		Preliminary bench design			IRA (°)	Maximum bench stack height	Geotechnical bench width
		From	To	BH	BFA	BW			
				(m)	(°)	(m)		(m)	(m)
Weathered		000	360	10	65	6.5	42	60	25
1, 2, 3	A	–	–	20	70	8.5	52	100	
1	B	010	040	20	70	10.5	48		
2	B	070	120	20	65	8.5	48		

Source: SRK

Note: BFA — bench face angle, BH — bench height, BW — berm width.

Assessment of the dewatering requirements of the Project's open pit area was also conducted to predict water inflow into the planned open pit over the course of its planned development. Groundwater inflows into the planned open pit are estimated to increase linearly from year 2038 until the end of LOM, with predicted inflow initially around 250 m^3/d and reaching between 1,200 m^3/d and 1,800 m^3/d by the end of LOM (Figure 6.3).

Figure 6.3: Predicted groundwater inflows to planned Boguty open pit



Source: SRK

6.4 Open pit optimization

SRK has used the following inputs to complete the re-optimization and re-scheduling of the Project, based on the data available as of 31 December 2023:

- verified Modifying Factors described in the Preliminary Design
- results from the latest hydrogeological and geotechnical study
- updated Mineral Resource estimate/block model
- latest topography survey as of December 2023
- latest project implementation plan, including a contractor mining operation and a staged processing plant development plan.

To develop an optimal engineered open pit design for the deposit, an optimized open pit shell was first prepared using the Lerchs-Grossman 3D routine in Whittle software (Whittle). The Whittle open pit optimiser algorithm selects a set of blocks with the maximum value per ton, creating an optimized open pit shell from the 3D Mineral Resource block model (3D block model).

Open pit optimization using the Whittle algorithm is an industry-standard approach for defining an optimum open pit shape and development of a mining sequence. The methodology relies on the preparation of a 3D block model to represent all parts of the mineralisation and host rock that can reasonably influence the open pit shape. A single cash surplus for each block is estimated as the difference between the revenues derived from each block, at a nominated product price, and the costs required to realize the revenue from that block. For mineralised blocks with a grade above the economic cut-off grade, a positive net cashflow reflects the profit that can be made by mining and treating the block to recover the product. For the other blocks, the negative net cashflow reflects the cost of mining the block to access blocks of positive cashflow.

With defined open pit optimization parameters, including saleable product prices, mining, processing and other indirect costs, processing recoveries, open pit slopes (as recommended by GT PFS) and other project-related constraints, the open pit optimiser searches for the open pit shell with the highest undiscounted cashflow. In accordance with the guidelines of the JORC Code for reporting of Mineral Resources and Ore Reserves, only Mineral Resource blocks classified as either Measured and/or Indicated can be considered for the open pit optimization purposes. Indicated Mineral Resources were applied to this Project. The open pit shells were used as a guide to subsequent practical mine designs.

6.4.1 Open pit optimization inputs

The input parameters and assumptions used to develop the open pit shells are presented in Table 6.2.

Table 6.2: Summary of pit optimization input parameters

Inputs	Unit	Value
Mining cost – total material movement (TMM)	RMB/bcm mining	32
Mining dilution	Percent	5
Mining loss	Percent	5
Processing cost	RMB/t feed	55
General & Administration	RMB/t feed	19
Processing recovery	Percent	79
Sales expense	Percent to revenue	0.8
Resource Tax	Percent to revenue	7.8
Product price	RMB/t 65% WO_3 concentrate	110,000
Overall slope angle	Degree	Various

Source: Jiaxin, GT PFS, Preliminary Design

Note: Technical economic parameters are detailed in Section 11.

The Mineral Resource block model is a key input to the optimization process. SRK completed a Mineral Resource estimate of the Project, with an effective date of 31 December 2023 (2023 MRE).

The reviewed and validated 2023 MRE 3D block model was then converted for the purpose of open pit optimization. The conversion involved re-blocking the MRE from 10 m × 10 m × 5 m (Easting × Northing × Elevation) into 20 m × 20 m × 10 m to accurately represent mining bench/flitch bulk. The variation in grade and tonnage between the original 2023 MRE and open pit optimization block model was within 1%. The rock type code was based on both geotechnical domains and Mineral Resource classification.

The following assumptions have also been made:

- The cost inputs for the open pit optimization are based on the latest cost estimate for the processing plant Phase II operation, which has an annual throughput of 4.95 Mtpa. The plant recovery rate is based on the rate after the ore sorting system is in place.

- The price of the concentrate is based on the forecast by F&S described in Section 10. The price excludes value-added tax (VAT).

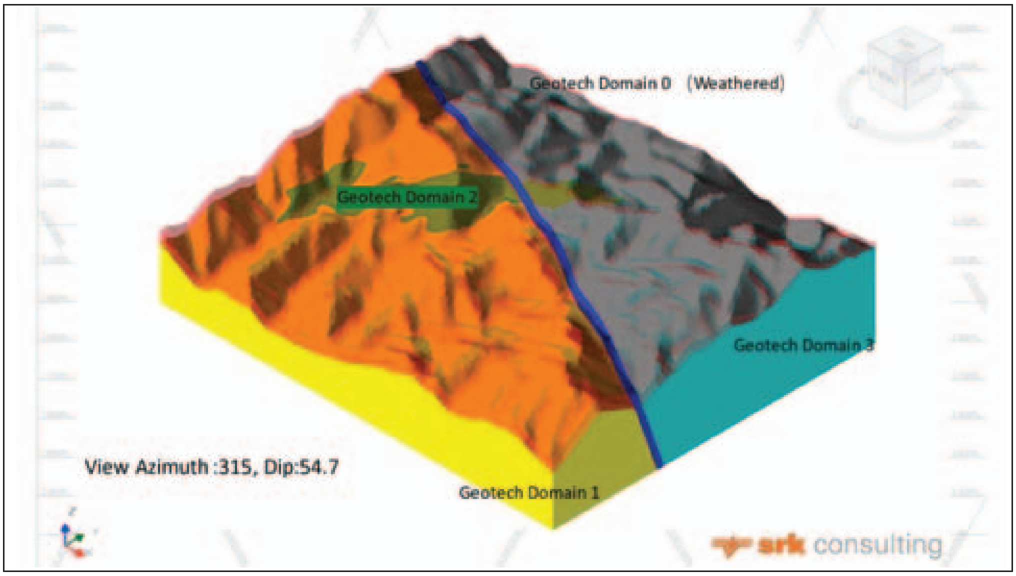
- The Preliminary Design considers a mining dilution of 5%, which SRK considers to be within the range of similar open pit operations. As the operation stabilizes, the mining dilution rate will be refined by future studies.

- The height of the open pit stack is in the range of 100-370 m, considering the ramp and geotechnical berm configurations.

- The mining licence limit is also considered during open pit optimization, with the optimization results being within the mining licence limit.

- The overall slope angle assigned is dependent on the geotechnical domain and sectors presented as presented in Figure 6.4.

Figure 6.4: Isometric view of geotechnical domains

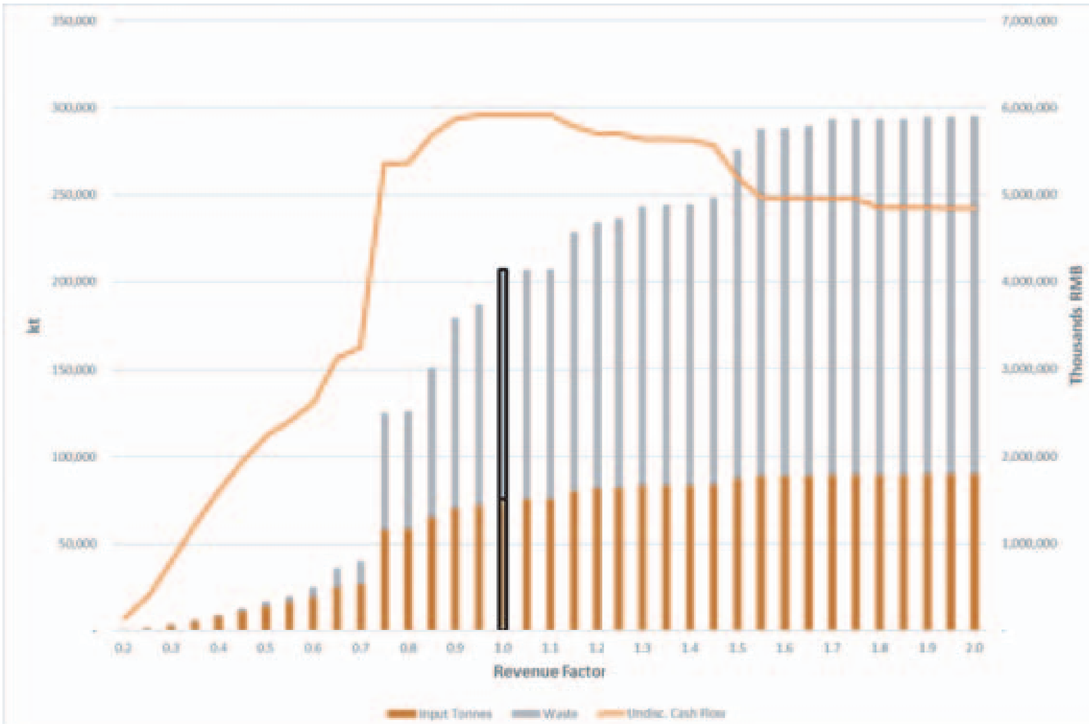


Source: GT PFS

6.4.2 Open pit optimization results

Based on the parameters and assumptions outlined above, the Whittle modeling produced a range of open pit shells from which the optimal result could be selected. The Whittle optimization results are shown in Figure 6.5 and summarized in Table 6.3.

Figure 6.5: Whittle optimization results



Source: SRK

Table 6.3: Summary of open pit optimization results on Revenue Factor

Revenue Factor	Undiscounted cashflow	Indicated Mineral Resources	Waste	WO_3 grade
	(RMB'000)	*(kt)*	*(kt)*	*(%)*
0.20	146,074	368	10	0.448
0.25	391,782	1,235	36	0.372
0.30	789,850	3,057	233	0.317
0.35	1,216,379	5,577	501	0.278
0.40	1,599,213	8,298	719	0.248
0.45	1,943,772	11,244	1,411	0.227
0.50	2,238,558	14,137	2,658	0.212
0.55	2,408,935	16,264	3,515	0.202
0.60	2,624,742	19,409	5,573	0.191
0.65	3,124,462	25,252	11,000	0.189
0.70	3,260,396	26,835	13,276	0.190
0.75	5,356,430	58,115	67,034	0.202
0.80	5,366,031	58,360	67,888	0.201
0.85	5,687,911	64,948	86,214	0.203
0.90	5,877,561	70,642	108,474	0.205
0.95	5,914,156	72,177	115,075	0.205

Revenue Factor	Undiscounted cashflow	Indicated Mineral Resources	Waste	WO_3 grade
	(RMB'000)	*(kt)*	*(kt)*	*(%)*
1.00	5,914,480	75,943	130,783	0.205
1.05	5,914,252	75,982	131,071	0.205
1.10	5,914,114	75,995	131,166	0.204
1.15	5,780,315	80,214	148,314	0.204
1.20	5,704,986	82,000	152,160	0.203
1.25	5,698,101	82,161	154,039	0.203
1.30	5,637,370	83,052	159,998	0.203
1.35	5,633,701	83,107	160,795	0.203
1.40	5,629,852	83,160	161,495	0.203
1.45	5,567,017	83,686	164,514	0.203
1.50	5,200,626	87,349	188,629	0.202
1.55	4,964,546	88,931	198,945	0.202
1.60	4,963,097	88,948	199,145	0.202
1.65	4,963,097	89,013	200,323	0.202
1.70	4,954,439	89,615	203,986	0.202
1.75	4,954,439	89,615	203,986	0.202
1.80	4,852,846	89,620	204,080	0.202
1.85	4,852,846	89,620	204,080	0.202
1.90	4,852,072	89,666	205,098	0.202
1.95	4,843,399	89,666	205,098	0.202
2.00	4,840,972	89,680	205,381	0.202

Source: SRK

Note:

1 The undiscounted cashflow presented above is exclusive of capital or other costs which are not mentioned in the inputs.

The ultimate open pit shell is achieved at Revenue Factor 1.0 (RF=1) when the Whittle optimization results are maximised. At RF=1, the marginal cost for an additional unit of product is equal to the net revenue received for that additional unit of product. As a result of assumptions, the pit shell on RF=1 was used as base case to produce a detailed open pit design, preliminary schedule, and preliminary economic analysis.

6.5 Detailed open pit design

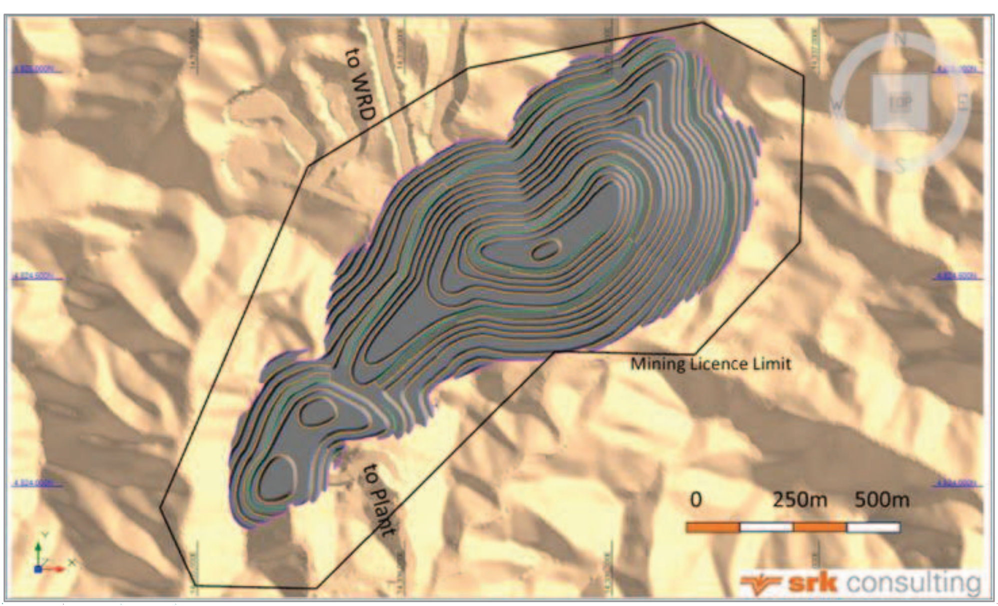
The geotechnical design and engineering design parameters are as presented in Section 6.4.1.

The open pit is designed with two exit ramps, on the north and south sides of the open pit, similar to the Preliminary Design. The north exit is designed to deliver waste to the waste rock dump (WRD). The final depth of the open pit is approximately 150 m (1,400 mRL toe elevation) from the open pit ramp crest with topography at 1,550 mRL. The highest wall is in the northeast where the wall crest is approximately 360 m high at 1,760 mRL from the bottom at 1,400 mRL toe elevation.

The open pit design parameters are:

- Dual-lane ramp width: 18 m
- Single-lane ramp width: 10 m
- Ramp and haul road gradient: 8% (1V:12.5H)
- Bench height: 20 m
- Bench face angle: 65°-70°
- Berm width: 6.5-10.5 m
- Inter-ramp slope angle: 48°-~52°
- Overall slope angle: 44°-45°°
- Minimum mining width: 20 m
- 'Goodbye'/open pit bottom bench height: 10 m.

Figure 6.6: Plan view of pit design



Source: SRK

The material types in the open pit design are detailed in Table 6.4 and graphically in Figure 6.4. Table 6.4 shows that the overall LOM stripping ratio is reasonably low at 1.5 (tonnes waste: tonnes ore). In total, 1.3 Mt of Inferred Mineral Resources are included in the open pit design but are treated as waste. The open pit exit is at the 1,550 mRL and the materials above that would be removed and transported by means of a temporary haul road.

Table 6.4: Summary of bench-by-bench materials within the open pit design

Bench #	Toe elevation	Indicated Mineral Resource (Diluted)	Inferred Mineral Resource	Waste	Average WO_3 grade	Stripping ratio	TMM
	(mRL)	*(kt)*	*(kt)*	*(kt)*	*(%)*	*(t:t)*	*(kt)*
19	1760	–	–	41	–	–	41
18	1740	0	–	216	0.139	–	216
17	1720	86	–	847	0.139	9.8	933
16	1700	372	–	3,323	0.164	8.9	3,694
15	1680	1,538	–	7,010	0.167	4.6	8,547
14	1660	4,116	39	10,776	0.186	2.6	14,931
13	1640	6,037	83	13,716	0.192	2.3	19,836
12	1620	6,518	72	14,013	0.190	2.2	20,603
11	1600	6,927	98	13,311	0.191	1.9	20,337
10	1580	7,213	164	10,322	0.207	1.5	17,699
9	1560	7,509	179	9,451	0.213	1.3	17,139
8	1540	7,244	230	7,808	0.213	1.1	15,282
7	1520	6,467	174	5,764	0.212	0.9	12,405
6	1500	4,778	77	3,718	0.219	0.8	8,573
5	1480	3,760	59	1,376	0.228	0.4	5,195
4	1460	2,804	46	886	0.228	0.3	3,736
3	1440	1,838	32	662	0.230	0.4	2,532
2	1420	1,121	25	381	0.229	0.4	1,527
1	1400	113	–	2	0.250	0.0	115
Total	–	68,441	1,278	103,619	0.206	1.5	173,338

Source: SRK

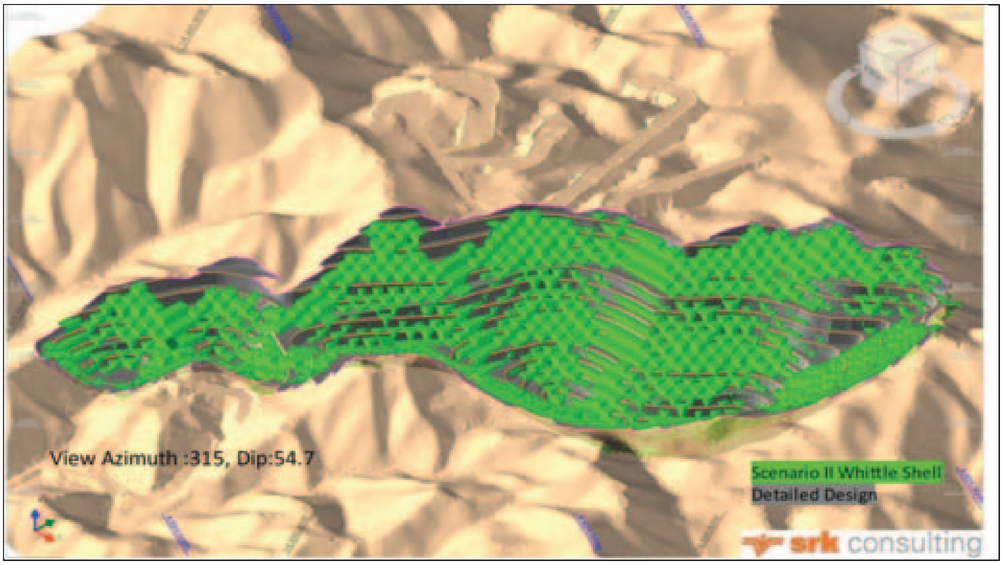
Notes:

1 Mineral Resources are at cut-off grade of 0.06% WO_3.

2 Mineral Resources presented above have considered dilution and loss (both at 5%).

The comparison between the open pit design and the Whittle-generated pit shell (Figure 6.7) is based on the topography and pit shell optimization results as of 31 December 2023. This ensures a fair comparison between the Whittle shell and the pit design by using the same topographic surface and pit shell optimization inputs. The Mineral Resources recovery in open pit design was slightly less (-4.9%) than those in the Whittle open pit shell and less waste movement (-2.4%) compared to Whittle open pit shell (Table 6.5). The comparison between the Whittle open pit shell and the open pit design are in line with industry accepted standards (maximum of 10% waste and maximum of 5% loss of ore). The bench-by-bench material within the open pit is presented in Table 6.4 and Figure 6.8.

Figure 6.7: Isometric view of design open pit versus Whittle shell



Source: SRK

Table 6.5: Comparison of design versus Whittle shell

Item	Unit	Whittle Shell	Detailed Design	Variance
Total — Waste	kt	109,435	106,775	-2.4%
Indicated Mineral Resource	kt	74,474	70,803	-4.9%
Inferred Mineral Resource	kt	1,355	1,326	-2.1%
Total Mineral Resource	kt	75,829	72,129	-4.9%
Total — Rock	kt	185,264	178,904	-3.4%
Stripping ratio	t:t	1.44	1.48	2.6%
Feed grade	%	2.05	2.05	0.1%

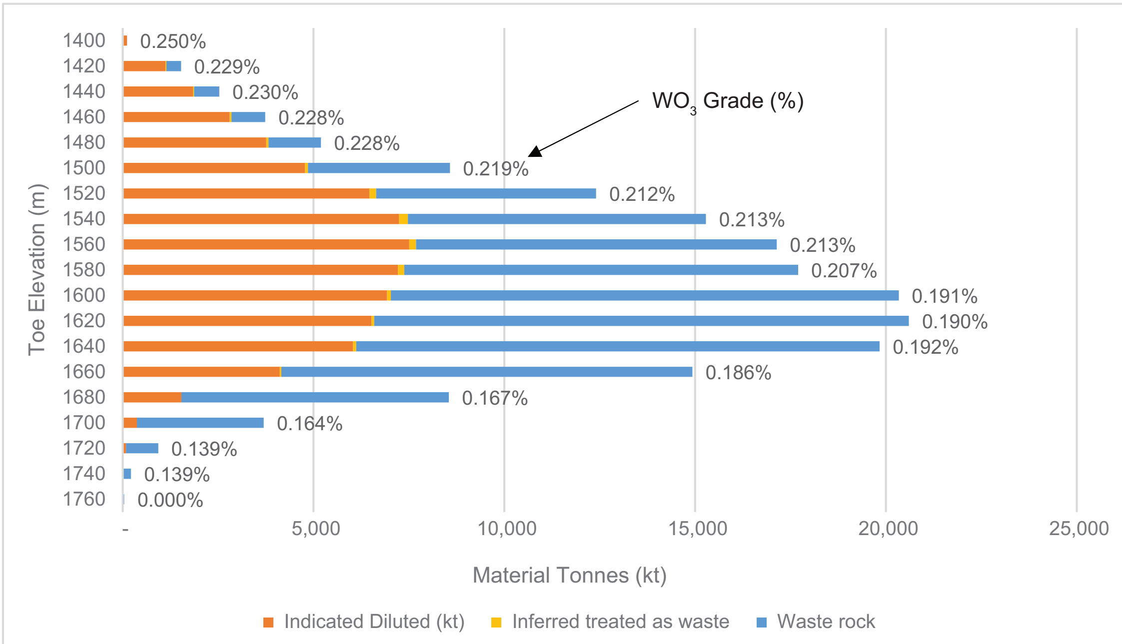
Source: SRK

Notes:

1 Mineral Resources are at cut-off grade of 0.06% WO_3.

2 Mineral Resources presented above have considered dilution and mining loss — both at 5%.

Figure 6.8: Bench-by-bench materials within the open pit design



Source: SRK

6.6 Mining methodology

6.6.1 Material mining

Conventional open pit mining methods are applied to extract ore from an open pit. Depending on the production rate, mine design, the geology of the vein systems in the deposit, and the choice of mining equipment, either selective or bulk mining techniques will be employed.

Mining operations typically consist of drilling, blasting and excavation, and loading and haulage of ore and waste, as well as grade control and dewatering of the open pit. The mining sequence is designed to occur from top to bottom, with two benches operating simultaneously.

For loading and hauling, 5.5 m^3 excavators and 55 t articulated haulage trucks are proposed. The updated GT PFS proposes that the final bench height should not be more than 30 m, and a 20 m bench height is recommended. SRK recommends two 10 m operational flitches combined into a 20 m bench, and the open pit design has used this approach. This allowed better selective mining to control dilution and loss rates, as well as lower the risk of slope failure.

The size and type of equipment to be used at the Project is common in Kazakhstan and presents a low technical risk to the Project.

The ore is planned to be transported to the crushing station or stockpiled in the ROM pad, and the waste is transported directly to the WRD.

6.6.2 Equipment fleet

Drilling and blasting are undertaken by a professional drill and blast contractor responsible for drilling, hole survey, explosive transportation, charging, stemming and blasting. The maximum size of blasted rock is 1 m. Any oversize ore rock is further crushed by hydraulic hammers to produce a more uniform size.

SRK has cross-checked the calculation of the required quantity of primary mining equipment using the Preliminary Design provided by ENFI in June 2020. The peak mining rate estimated by SRK exceeds the ENFI report by a factor of 1.4, resulting in a corresponding increase of 1.4 times in the primary mining equipment requirements.

To carry out blasting operations, 11 down-the-hole hammer (DTH) drill rigs equipped with mobile air compressors are required and another DTH drill rig is kept on standby. The blast holes will have a diameter of 165 mm. The blast holes are to be laid out in designs that are either rectangular or quincunx, with spacing of 4.5 m and a burden of 4.5 m.

Loading is carried out by a total of eight hydraulic excavators with 5.5 m^3 bucket capacities and two front-end loaders. A fleet of 28 articulated haulage trucks (55 t) transports the ore to the processing plant and stockpiles.

Aside from the primary production fleet, there is also an auxiliary mining fleet that includes utility trucks, compactors, graders, water trucks (with a capacity of 50 m^3) and dozers.

Table 6.6 lists the peak production mining fleet. The number of planned mining units is suitable for a TMM capacity of 12.45 Mtpa. The additional equipment is estimated to be 40% of designed capacity to match the LOM plan.

Table 6.6: Heavy mining equipment fleet during peak production

Equipment	Specification	Planned	Additional	Remarks
DTH drill rig	Hole diameter 165 mm	9	3	One used for slope treatment
Excavator	Bucket size 5.5 m^3	6	2	Diesel hydraulic excavator
Mine truck	Carrying capacity 55 t	23	7	
Dozer	433 kW	3		Wheel type
Dozer	373 kW	3		
Front-end loader	Bucket size 3.0 m^3	2		
Compactor	130 kW	1		
Grader	224 kW	1		

Equipment	Specification	Planned	Additional	Remarks
Water truck	50 m^3	5		
Excavator	Bucket size 2.0 m^3	2		Hydraulic hammer attached
Hydraulic hammer	PCY500	2		
Utility truck	5 t	3		
Emulsion explosive truck	6 t	2		
Explosive material truck	Carrying capacity 1 t	1		
Explosive truck	Charging capacity 10 t	2		
Light vehicle	Pickup	5		

Source: Preliminary Design, SRK

6.7 Mine plan

The strategic scheduling was based on the Whittle shell (RF=1) and served as a guide to the scheduling for the final open pit design. The target was to provide sufficient feed for the staged development of the processing plant (Table 6.7).

Trial production commenced in November 2024. In H2 CY2025, the target throughput is set at 1.65 Mt. Following the commissioning of the ore sorting circuit in the third quarter of CY2026, the throughput will gradually increase. The target throughputs for CY2026 and CY2027 are 3.80 Mt and 4.95 Mt, respectively. Starting from CY2028, the annual target throughput is expected to reach 4.95 Mt.

Table 6.7: Target processing plant throughput

Throughput	H2 2025	2026	2027	2028 onwards
Mt	1.65	3.80	4.95	4.95

Source: Jiaxin

Note: All years are calendar years.

6.7.1 Scheduling strategy and assumption

Two phases of operation were planned, using the pushbacks strategy proposed by the Preliminary Design. SRK also used this strategy (Figure 6.9). The internal pushback was guided by the RF=0.7 Whittle shell.

The scheduling is at PFS level. The mining sequence and/or dependency can be simplified as follows:

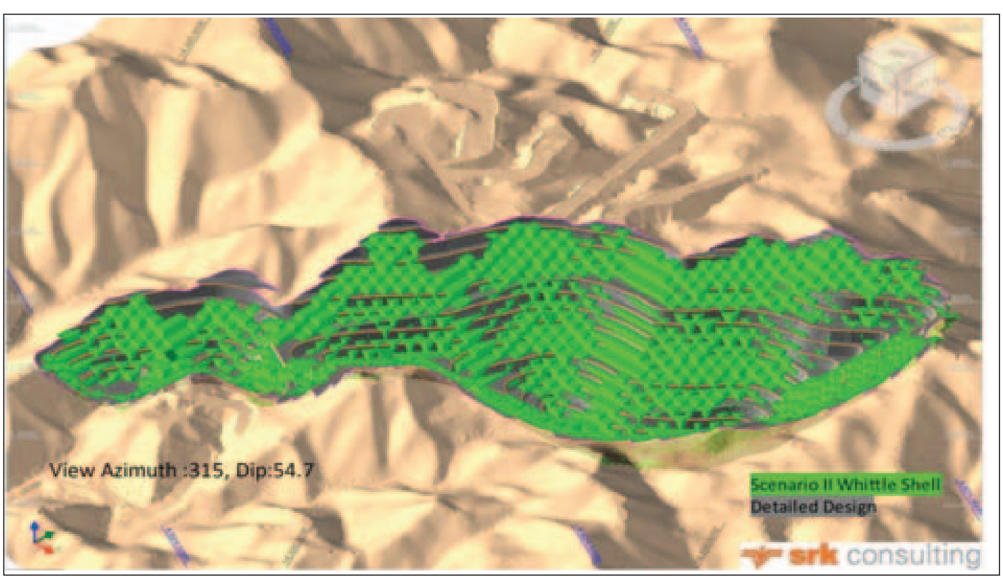
- Vertical overlap: the mining sequence to be adopted is downwards bench by bench.
- Horizontally: the material on each bench is split into blocks at a maximum area of 40,000 m^2. The mining sequence is from the ramp outwards to the final open pit limit.
- With multiple operating areas, there is greater flexibility for ore blending.
- The vertical sink rate is limited to a maximum of 4 benches (80 m).

The cut-off grade, as defined by the input parameters in Table 6.9, is 0.06% WO_3. However, an operational cut-off grade of 0.14% WO_3 is applied at the mine site during 2025 and 2026. During this period, only material with a grade above 0.14% WO_3 is fed to the processing plant, while lower-grade material is temporarily stockpiled. Once the ore sorting system commences operation in 2027, the material above the cut-off grade (0.06% WO_3) and all previously stockpiled lower-grade material will be processed.

Stockpiling is considered to be at a single ROM pad without grade categories, and material re-handled from the stockpile is assigned the average grade.

The mining operation is run by a contractor with the required mining fleet and associated capacity. The Preliminary Design, prepared by ENFI, established a TMM capacity of 12.45 Mtpa. SRK used this capacity as the basis of design for planning purposes. However, it should be noted that the TMM capacity exceeds the proposed 12.45 Mtpa by approximately 3-48% over for 7 years. This increase is primarily due to the scheduling requirements aimed at maintaining a stable feed to the processing plant.

Figure 6.9: Isometric view of pushbacks in LOM plan



Source: SRK

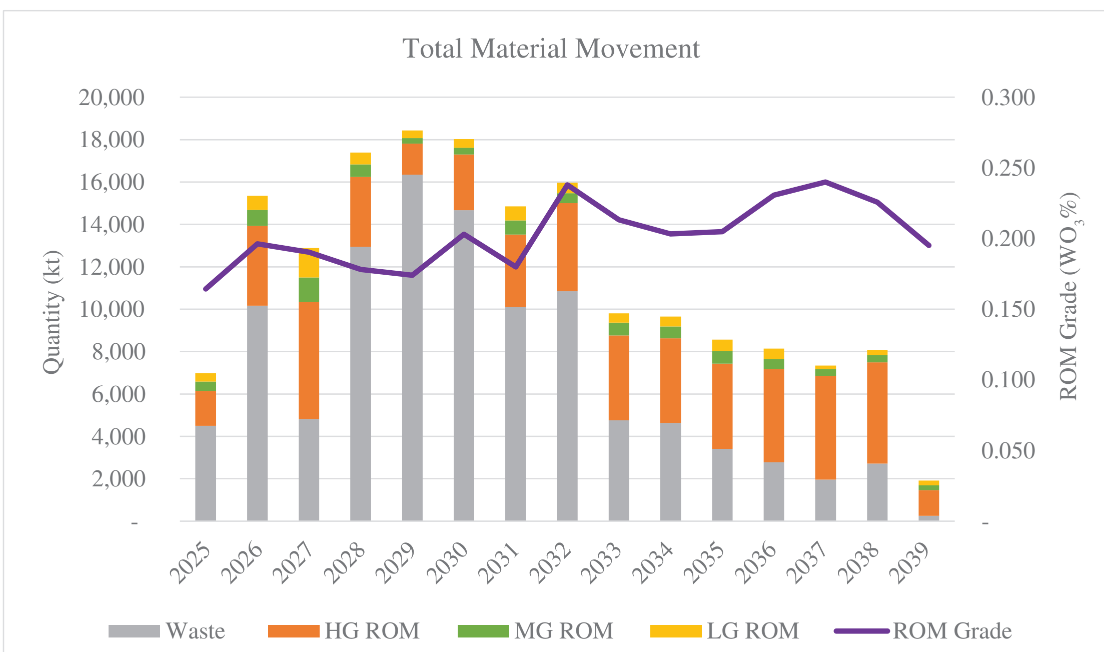
6.7.2 Life of Mine plan

Based on the strategy and assumptions above, the LOM was scheduled using Deswik.Scheduling software. The mining plan (TMM schedule), plant feed plan and ROM pad balance (stockpile) are presented in Figure 6.10, Figure 6.11 and Figure 6.12, respectively, on an annual basis.

The mining plan is expected to meet the demand of the Company's schedule, resulting in a mine life of 15 years, which starts from June 2025. Over the entire LOM, an estimated total of 68 Mt feed is to be treated.

Mining operations commenced in late October 2024. As of June 2025, approximately 4.35 Mt of materials had been excavated, including 2.04 Mt of ROM material with cut-off grade of 0.06% WO_3 (Figure 6.10).

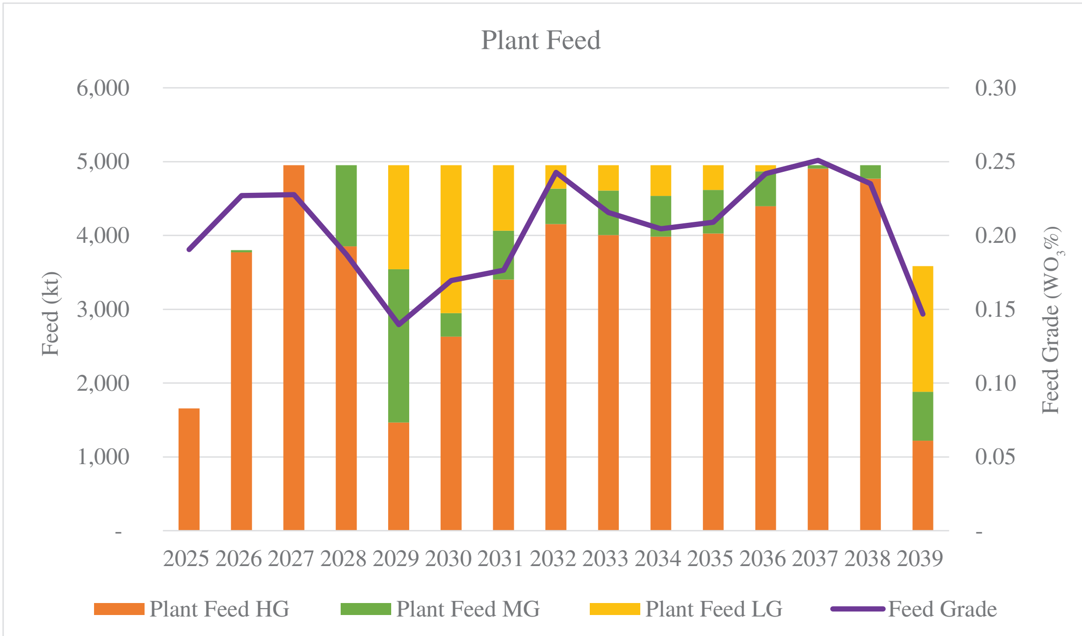
Figure 6.10: TMM schedule over LOM



Source: SRK

Note: HG: >0.14% WO_3, MG: 0.12%-0.14% WO_3 and LG: 0.06%-0.12% WO_3

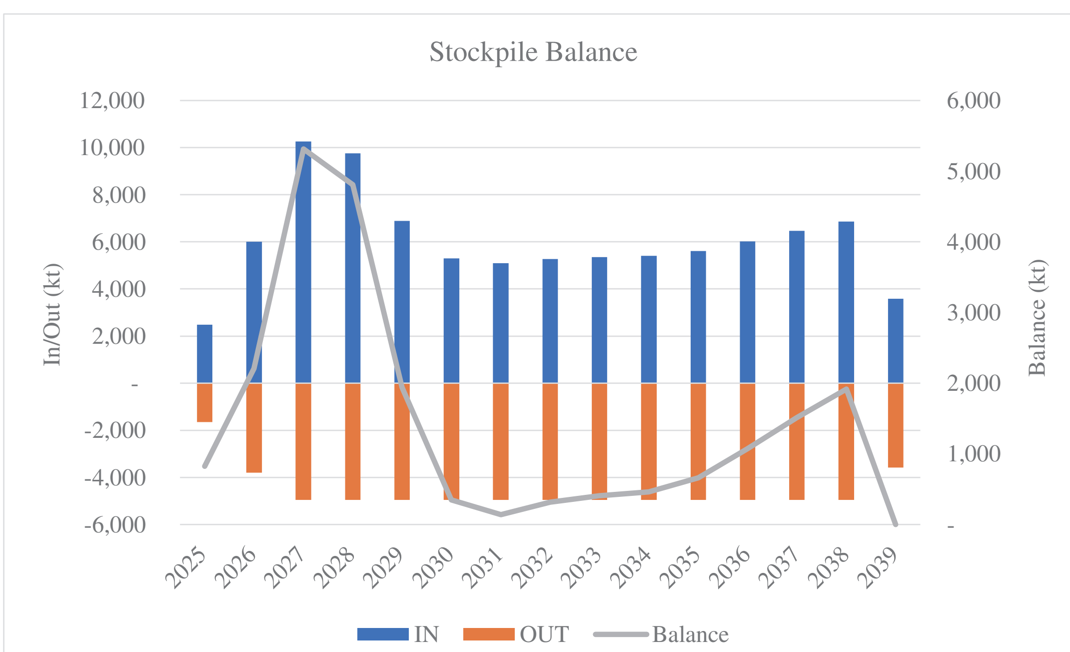
Figure 6.11: Plant feed schedule over LOM



Source: SRK

Note: HG: >0.14% WO_3, MG: 0.12%-0.14% WO_3 and LG: 0.06%-0.12% WO_3

Figure 6.12: ROM pad balance over LOM



Source SRK

Table 6.8: Summary of LOM

Period	TMM	ROM	Grade	HG Tonnes	HG Grade	MG Tonnes	MG Grade	LG Tonnes	LG Grade	Waste	Stripping Ratio	Feed	Feed Grade
Unit	*kt*	*kt*	*WO_3 %*	*kt*	*WO_3 %*	*kt*	*WO_3 %*	*kt*	*WO_3 %*	*kt*	*t:t*	*kt*	*WO_3 %*
H2 CY2025 .	6,977	2,478	0.164	1,655	0.191	440	0.123	384	0.099	4,498	1.81	1,655	0.191
CY2026 . . .	15,344	5,181	0.196	3,771	0.228	755	0.124	655	0.099	10,163	1.96	3,800	0.227
CY2027 . . .	12,879	8,060	0.190	5,513	0.228	1,171	0.124	1,376	0.098	4,819	0.60	4,950	0.228
CY2028 . . .	17,392	4,445	0.178	3,290	0.201	587	0.124	568	0.100	12,947	2.91	4,950	0.187
CY2029 . . .	18,429	2,079	0.174	1,464	0.201	250	0.124	365	0.098	16,350	7.86	4,950	0.140
CY2030 . . .	18,026	3,361	0.203	2,627	0.229	319	0.125	415	0.101	14,665	4.36	4,950	0.169
CY2031 . . .	14,853	4,741	0.180	3,403	0.207	662	0.124	675	0.100	10,112	2.13	4,950	0.176
CY2032 . . .	15,965	5,125	0.238	4,154	0.267	478	0.124	493	0.100	10,840	2.12	4,950	0.243
CY2033 . . .	9,797	5,041	0.213	4,006	0.239	601	0.124	435	0.099	4,756	0.94	4,950	0.215
CY2034 . . .	9,648	5,007	0.203	3,982	0.227	556	0.123	470	0.099	4,642	0.93	4,950	0.204
CY2035 . . .	8,559	5,148	0.205	4,027	0.230	590	0.124	530	0.099	3,411	0.66	4,950	0.209
CY2036 . . .	8,134	5,362	0.231	4,395	0.257	473	0.124	494	0.097	2,772	0.52	4,950	0.242
CY2037 . . .	7,343	5,388	0.240	4,906	0.252	319	0.125	163	0.103	1,954	0.36	4,950	0.251
CY2038 . . .	8,075	5,357	0.226	4,767	0.239	353	0.125	236	0.099	2,718	0.51	4,950	0.235
CY2039 . . .	1,916	1,668	0.195	1,219	0.226	218	0.124	231	0.101	248	0.15	3,586	0.147
Total	**173,338**	**68,441**	**0.206**	**53,180**	**0.233**	**7,772**	**0.124**	**7,489**	**0.099**	**104,898**	**1.53**	**68,441**	**0.206**

Source: Independent Technical Report

Notes:

1 Mineral Resources are at cut-off grade of 0.06% WO_3.

2 ROM materials include dilution and loss at rates of 5%.

3 Inferred Mineral Resources are treated as waste.

4 HG (high-grade) material is defined as material above a cut-off grade of 0.14% WO_3; MG (medium-grade) material is defined at a cut-off grade between 0.12% and 0.14% WO_3 and LG (low-grade) material is defined at a cut-off grade of 0.06% WO_3.

5 Some totals may not correspond to the sum of the separate figures due to rounding.

6.8 Ore Reserve estimates

The definition of Ore Reserves is based on the JORC Code (2012) namely:

An 'Ore Reserve' is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.

The conversion from Mineral Resources to Ore Reserves is presented in Figure 5.1.

6.8.1 Ore definition

Defining the economically mineable ore was based on the results of open pit optimization. Open pit optimization was used to identify the optimum economic open pit shape based on the highest project cashflow. The marginal cut-off grade (MCOG) of tungsten defined the destination for material within the designed open pit. Material having a grade greater than the MCOG is hauled to the crusher or ROM stockpile, otherwise it is treated as waste and hauled to the WRD.

Applying the inputs presented in Table 6.9, SRK applied the following formula to estimate the MCOG of tungsten ore:

$$A=(Cp+Cg)/(P/(65)*R*(1-RY))$$

Table 6.9: Estimates of MCOG for tungsten ore

Inputs	Unit	Parameter	Description
A	%	0.06	MCOG for WO_3
Cp	RMB/t feed	55	Processing cost
Cg	RMB/t feed	19	General & Administration cost
R	Percent	79	Processing recovery in concentrate
P	RMB/t 65%WO_3 Concentrate	110,000	Forecast (65%) standard tungsten concentrate price
RY	Percent to revenue	0.8/7.8	Sales expense and resource tax

Source: Jiaxin, Preliminary Design

Note: Technical economic parameters are detailed in Section 11.

The MCOG was estimated at 0.06% WO_3. SRK considers that material within the open pit with a grade above 0.06% total tungsten can be processed economically, and Ore Reserves at the MCOG will have positive revenues.

The MCOG was calculated based on technical and economic assumptions described in Table 6.9. These assumptions may change in the future, which will affect the MCOG calculation and thus impact the mine inventory.

6.8.2 Modifying Factors

The following Modifying Factors are used to determine the Ore Reserve.

- Optimal open pit shell. This factor considers the economic open pit limits, taking into account the vein domains and excluding Mineral Resources located outside the mining licence limit as designated mining 'no-go' areas.

- Open pit design. The conversion factor for the mining inventory between the optimized open pit shell and the practical mine design has been accounted for in this parameter.

- Dilution. Mining dilution is estimated at 5% according to the Preliminary Design. The Modifying Factor would be updated as improved parameters become available following commissioning once operation reconciliation data are available.

- Mining loss. A 5% mining loss rate was applied as proposed in the Preliminary Design.

- The end-of-month topographic survey was applied to deplete the mined-out mineral resources and stripped waste materials.

6.8.3 Ore Reserve estimates

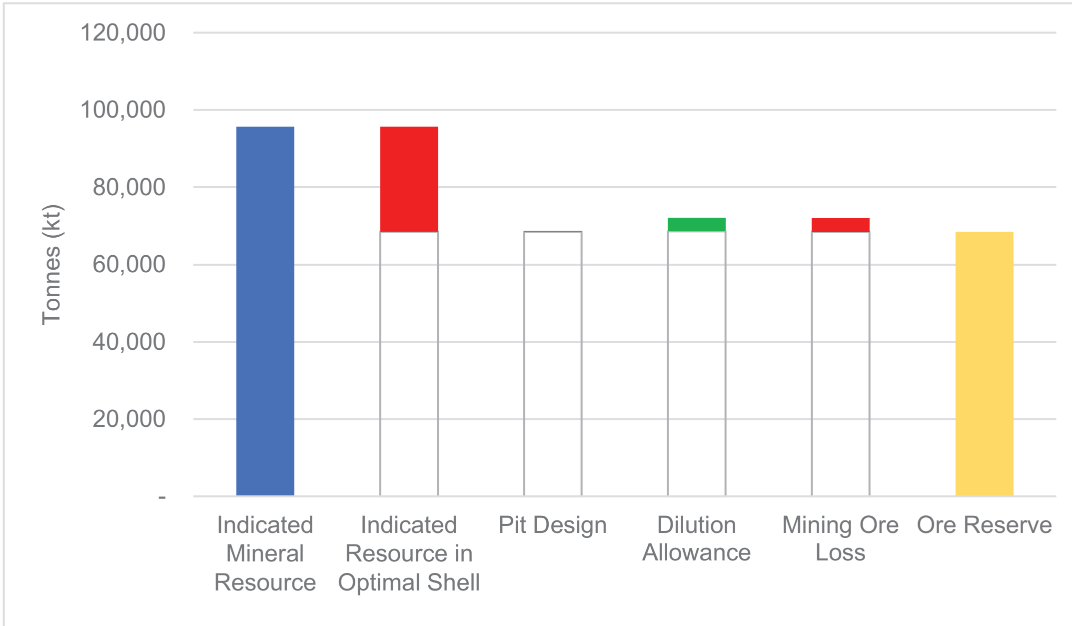
The estimated Ore Reserve, based on the 2023 MRE and the application of Modifying Factors to the tonnes and contained tungsten (WO_3), is summarized in Table 6.10 and illustrated in waterfall charts shown in Figure 6.13 and Figure 6.14.

Table 6.10: Summary of Ore Reserve conversion process

Description	Tonnes	Grade WO_3	WO_3 Contained
	(kt)	*(%)*	*(kt)*
Indicated Mineral Resource in 2023 MRE	95,600	0.209	199.8
Indicated Resource in optimal pit shell, constrained by the topographic survey as of 30 June 2025	68,498	0.216	148.0
Pit Design	68,612	0.216	148.2
Allowance for dilution	3,431	–	–
Mining ore loss	-3,602	0.206	-7.4
Probable Reserve	68,441	0.206	140.8

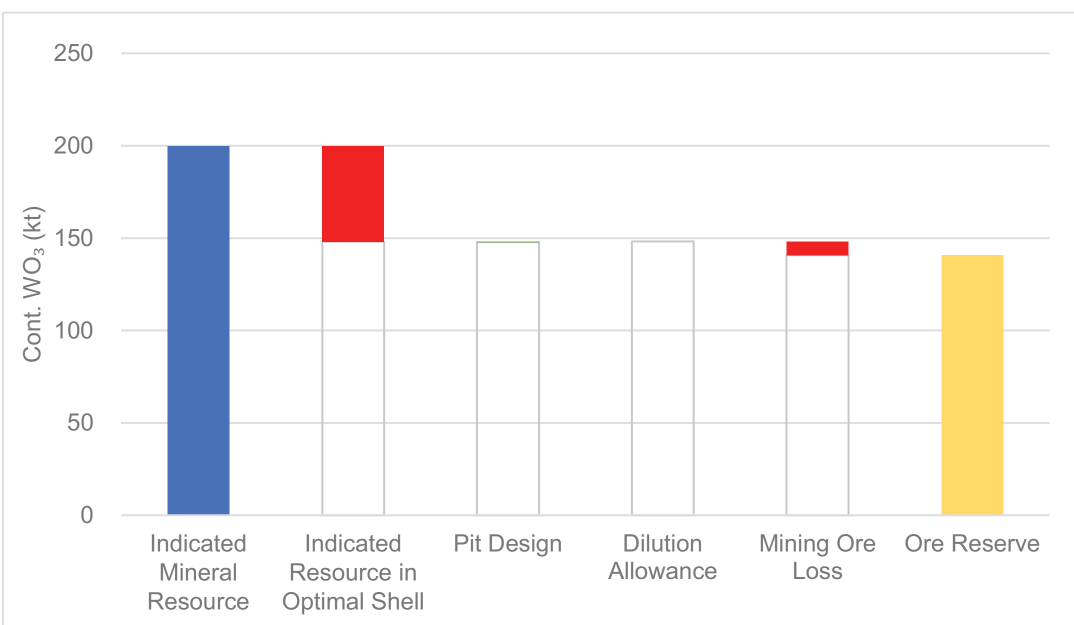
Source: SRK

Figure 6.13: Waterfall chart of mining inventory



Source: SRK

Figure 6.14: Waterfall chart of contained WO_3



Source: SRK

6.8.4 Ore Reserve Statement

By applying the Modifying Factors, SRK estimated the Ore Reserves of the Boguty Tungsten Project in accordance with the JORC Code (2012) (Table 6.11). The economically mineable parts of the Indicated Mineral Resources within the open pit design, the latest topography (30 June 2025) and the current boundaries of the mining licence, including diluting materials and allowance for losses, were classified as Probable Ore Reserves. The feed ore is estimated based on the reference point being the primary crusher or stockpiles at the processing plant.

Table 6.11: Ore Reserve Statement — Boguty Tungsten Project as at 30 June 2025

Category	Ore Reserve	WO_3 grade	Cont. WO_3
	(Mt)	*(%)*	*(kt)*
Probable	68.4	0.206	140.8

Source: SRK

Notes:

1 The Ore Reserve estimate is effective as at 30 June 2025.

2 A marginal cut-off grade (MCOG) of 0.06% WO_3 was used to define ore and waste.

3 The pit optimization and the estimation of MCOG are based on a forecast price of RMB110,000 per ton for 65% WO_3 concentrate.

4 The Ore Reserves are reported in metric dry tonnes.

5 The Ore Reserves are reported at the reference point of the ROM stockpile before crushing.

6 The Ore Reserves are reported inclusive of Mineral Resources.

7 All materials extracted since the initial Ore Reserve estimate declared in December 2023 have been depleted from the Ore Reserve.

Competent Person's Statement

The information in this Report that relates to Ore Reserves based on information compiled by Falong Hu who is a Fellow of The Australasian Institute of Mining and Metallugry (AusIMM). Falong Hu is a full-time employee of SRK Consulting (China) Limited and has sufficient experience that is relevant to the style of mineralisation, type of deposit under consideration and to the activity which he undertakes to qualify as a Competent Person as defined in the 2012 edition of the *Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code).

6.9 Conclusion

SRK has reviewed the historical studies on the Project and noted that the Modifying Factors outlined in the Preliminary Design, which served as the basis for the construction, lacked sufficient geotechnical detail and level of study to meet the standards required for a PFS. The Company accepted SRK's recommendations and conducted further geotechnical and hydrogeological studies to allow inputs for the mine design and development to at a suitable standard and result in the overall study being classified as a PFS. These additional studies were carried out and completed in August 2023.

SRK used the updated Mineral Resource estimate and corresponding block model, along with the verified open pit mine Modifying Factors, as well as the geotechnical slope input parameters derived from the recently completed geotechnical study. These inputs were used to develop the open pit optimization, mine design and production schedule (ore, waste, and tungsten grade) in order to report an Ore Reserve. Mining operations commenced in late October 2024. The production schedule was based on the overall project schedule as prepared by the Company, taking into account of the current status of the construction and the phased development of the processing plant.

The selected conventional open pit mining method is considered appropriate and a low-risk solution. The proposed contractor mining equipment fleet is reasonable for the 12.45 Mtpa TMM capacity. However, the TMM capacity exceeds the proposed 12.45 Mtpa by 3-48% for 7 years. This increase is due to the scheduling requirements to maintain a stable feed to the processing plant. SRK has assumed this is achievable if the contractor sources additional mobile equipment.

The Company should assess whether it is beneficial to mine the deeper portions of the defined Mineral Resource or consider designing another pushback in the later part of the peak TMM mining period. This evaluation should also include a study on the possibility of expanding the mining licence limit to accommodate the expanded mining operations. Further geotechnical studies should also be conducted as the mine develops.

The Company has adopted a strategic approach by feeding only material with a grade above 0.14% WO_3 to the processing plant between 2025 and 2026, while lower-grade material is temporarily stockpiled. Once the ore sorting system becomes operational in 2027, ore above the cut-off grade and all previously stockpiled lower-grade material will be processed. SRK considers this approach is reasonable.

SRK has prepared the Ore Reserve estimate as at 30 June 2025, in accordance with the JORC Code (2012) guidelines. This estimate was prepared with a MCOG of 0.06% WO_3, resulting in 68.4 Mt at 0.206% WO_3 grade. On a tonnage basis, approximately 72% of the eligible Mineral Resources were converted to Ore Reserves.

7 MINERAL PROCESSING

7.1 Introduction

The full-scale construction of mining, processing and ancillary facilities began in May 2021. The construction of the processing plant complex was completed, equipment was installed, auxiliary facilities were largely set up and trial production began in November 2024 (Figure 7.1). The processing plant adopts a two-stage crushing, ore sorting, tertiary crushing and grinding circuit, along with a concentrator that uses flotation with a one-stage rougher, three-stage scavenger and three-stage cleaner process.

The processing plant will be developed in two phases. In Phase I, the nameplate capacity is 3.3 Mtpa or 10,000 tpd. In Phase II, the nameplate capacity will be raised to 4.95 Mtpa or 15,000 tpd. Commercial production for Phase I commenced in April 2025, while Phase II commercial production is planned to begin in the first quarter of CY2027.

The construction of the plant has accommodated this phased development. The nameplate capacity of the primary crushing, secondary crushing and concentrate dewatering circuits is 15,000 tpd, while the nameplate capacity of the tertiary crushing, grinding and flotation circuits is 10,000 tpd. A connecting interface for the ore sorting circuit has been reserved between the secondary and tertiary crushing circuits. Land located on the western side of the screening plant has been reserved for the ore sorting facility.

Phase II construction involves the installation of an ore sorting facility. Once Phase I production is commissioned, an industrial-scale ore sorting test will be conducted on site. Based on the results from this test, an ore sorting circuit will be designed and constructed. The waste rejection rate through ore sorting is estimated to be 33.3% based on the completed testwork, where 15,000 tpd feed ore is pre-concentrated to 10,000 tpd ore.

Figure 7.1: Processing plant complex

Source: July 2025, SRK Site Visit

Note: A: Primary crushing station, B: Substation, C: Ball mill, D: Flotation column, E: Flotation cells, F: Scheelite concentrate.

7.2 Processing testwork

The design of the processing plant is based on metallurgical and processing testwork conducted between 2015 and 2019. An additional ore sorting test was also performed in 2023 (Table 7.1).

Table 7.1: List of metallurgical and processing studies

Institute	Report title	Date	Abbreviation
Hunan Research Institute of Non-Ferrous Metals (HRI)	Report on the metallurgy testwork and technical development research on the Boguty tungsten mine, Kazakhstan	November 2015	HRI 2015
	Feasibility study on the Boguty tungsten mine, Kazakhstan with 10,000 tpd mining capacity	December 2017	2017 FS
Ganzhou HPY Technology Co. Ltd. (HPY)	Report on the ore sorting testwork on a scheelite mine in Kazakhstan	March 2019	HPY 2019
Beijing Hollister Technology Co., Ltd. (Hollister)	Report on the ore sorting testwork on a scheelite mine in Kazakhstan	April 2019	Hollister 2019
ENFI	Feasibility study on the Boguty tungsten mining and engineering project, Kazakhstan with 15,000 tpd mining capacity (10,000 tpd in the first 2 years)	August 2019	2019 FS
ENFI	Preliminary design on the Boguty tungsten mining and engineering project, Kazakhstan with 15,000 tpd mining capacity (10,000 tpd in the first 2 years)	June 2020	Preliminary Design
Ganzhou Nonferrous Metallurgy Research Institute (GNMRI)	Report on the ore sorting testwork on the Boguty tungsten mine	September 2023	GNMRI 2023

Source: Jiaxin; compiled by SRK

7.2.1 Test samples

In 2015, nine metallurgical samples were taken, including two surface samples, three from Adit 5, and four from Adit 6. These samples were collected using blasting, yielding a total of 64 t (Table 7.2). Based on the distribution of sampling locations and grades, SRK considers the test samples are representative. The samples collected were only for the metallurgical and flotation testwork — not for ore sorting.

Table 7.2: Metallurgical test samples

Composite no.	Sampling location		Grade	Designed sampling weight	Actual sampling weight
			(WO_3 %)	*(t)*	*(t)*
Sample 1	Surface	Line 23, sample #3149	0.28	0.5	1.0
Sample 2	Surface	Line 23, sample #3720-3730	0.08	2.7	4.2
Backup 1	Adit 6	Line 27, sample #24212-24218	0.08		2.0
Backup 2	Adit 6	Line 28, sample #21554-21560	0.22		15.6
Sample 5	Adit 6	Line 27, sample #24395-24401	0.22	9.9	15.6
Sample 6	Adit 6	Line 29, sample #24829-24833	0.34	4.8	7.5
Sample 7	Adit 5	Line 18, sample #22164-22802	0.03	0.7	1.3
Sample 8	Adit 5	Line 21, sample #25280-25333	0.21	7.6	12.0
Sample 9	Adit 5	Line 24, sample #6518-6523	0.17	3.0	4.8
Total			**0.21**	**29.2**	**64.0**

Source: HRI 2015

7.2.2 *Mineralogical characterization*

Chemical and mineral composition

Table 7.3, Table 7.4 and Table 7.5 show the chemical composition, mineral composition and phase analysis results of the test samples, respectively. The results show that tungsten is the primary recoverable element, with no significant recoverable value for other elements, such as copper, lead, zinc and sulfsulfur. Deleterious elements, including arsenic and phosphorus, are present in trace amounts and have no effect on product quality. The key metallic minerals are pyrite, pyrrhotite, limonite and scheelite and the key non-metallic minerals are quartz, feldspar (plagioclase and K-feldspar), mica (biotite, muscovite and sericite), chlorite, calcite and ferro-actinolite. Scheelite is the primary tungsten mineral with trace amounts of wolframite and tungstite.

Table 7.3: Test sample chemical composition

Composition	**WO_3**	**Cu**	**Zn**	**Pb**	**Mo**	**TFe**	**As**	**S**	**P**
Content (%)	0.22	0.03	0.023	0.02	0.009	3.3	<0.05	0.47	<0.05
Composition	**SiO_2**	**Al_2O_3**	**MgO**	**CaO**	**Na_2O**	**K_2O**	**Au[1]**	**Ag[1]**	
Content (%)	65.93	11.05	1.99	3.71	1.33	2.97	<0.05	<0.10	

Source: HRI 2015

1 Unit: g/t

Table 7.4: Test sample mineralogy

Mineral	Content (%)	Mineral	Content (%)
Scheelite	0.26	Rutile	0.33
Pyrite	1.22	Hedenbergite	0.39
Pyrrhotite	0.29	Zoisite	0.17
Chalcopyrite	0.04	Apatite	0.30
Sphalerite	0.03	Ferrosilite	0.06
Arsenopyrite	0.04	Grunerite	0.20
Molybdenite	0.02	Fluorite	0.17
Galena	0.02	Parisite-(Ce)	0.01
Limonite	0.48	Celsian	0.03
Quartz	46.92	Titanite	0.63
plagioclase	17.17	Kaolinite	0.01
K-feldspar	9.65	Diopside	0.64
Biotite	5.10	Clinohumite	0.01
Muscovite (sericite)	7.47	Zircon	0.05
Chlorite	3.73	Garnet	0.38
Calcite	1.76	Spinel	0.02
Ankerite	0.18	Periclase	0.02
Dolomite	0.21	Minnesotaite	0.03
Magnesite	0.04	Talc	0.06
Rhodochrosite	0.01	Montmorillonite	0.03
Ferro-actinolite	1.62	Other	0.20
		Total	**100.0**

Source: HRI 2015

Table 7.5: Tungsten phase analysis

Tungsten mineral phase	Scheelite	Wolframite	Tungstite	Total Tungsten
Content (%)	0.211	0.006	0.003	0.22
Proportion (%)	95.91	2.73	1.36	100.00

Source: HRI 2015

Textural characteristics of major minerals

Scheelite

Scheelite mainly occurs as medium to coarse anhedral grains, ranging in size from 0.05 mm to 1.00 mm. The grains are sparsely distributed in gangue minerals, such as quartz, muscovite and calcite. It is most common in quartz or at the junction of quartz and muscovite, but it can also be found in calcite. Scheelite grains can also be found in calcite stockworks or irregularly shaped chlorite, fluorite and other gangue minerals. Scheelite is not closely associated with pyrite, sphalerite, chalcopyrite and other metallic minerals.

Wolframite

Wolframite content is very low — it is occasionally found in gangue minerals as irregularly shaped grains ranging in size from 0.02 mm to 0.05 mm.

Pyrite, pyrrhotite

Pyrite is the most abundant metallic mineral in the sample. It mainly occurs as 0.03 mm to 0.50 mm anhedral and irregularly shaped grains — and less commonly as subhedral grains — and is commonly scattered in gangue minerals. Small amounts of pyrite occur as intergrowths with sphalerite. Pyrrhotite occurs uncommonly, is mainly irregularly shaped and scattered in gangue minerals.

Molybdenite, sphalerite, chalcopyrite

Molybdenite, sphalerite and chalcopyrite are fine-grained and are rarely seen in the samples. Molybdenite mainly occurs as fine flakes, ranging in size from 0.01 mm to 0.05 mm, scattered within gangue minerals such as quartz. Chalcopyrite grains, range in size from 0.02 mm to 0.05 mm and have an emulsion texture. They are often found enclosed within sphalerite grains, as well as among gangue mineral grains. Additionally, chalcopyrite grains are occasionally irregularly shaped and enclosed within pyrite.

Limonite

Limonite is formed from weathering and hydration of iron minerals and iron-containing sulfides. It typically consists of a mixture of goethite, lepidocrocite, hydrogoethite, hydrous silica and clay minerals. Limonite in the ore is irregularly shaped and commonly found in gangue minerals, often enclosing remnants of pyrite.

Ore texture and structure

Microscopic observation of thin sections has identified the following ore textures:

- anhedral granular texture: mainly found in metallic minerals such as scheelite, pyrite, pyrrhotite, chalcopyrite and sphalerite; incomplete crystal habit, occurred as anhedral grains in various shapes

- euhedral to subhedral granular texture: a small amount of pyrite in the form of relatively regular euhedral and subhedral crystals

- flaky texture: mainly in molybdenite and muscovite in the form of flakes

- inclusion texture: less common, sphalerite included in pyrite

- emulsion texture: chalcopyrite enclosed in sphalerite in the form of minute blebs.

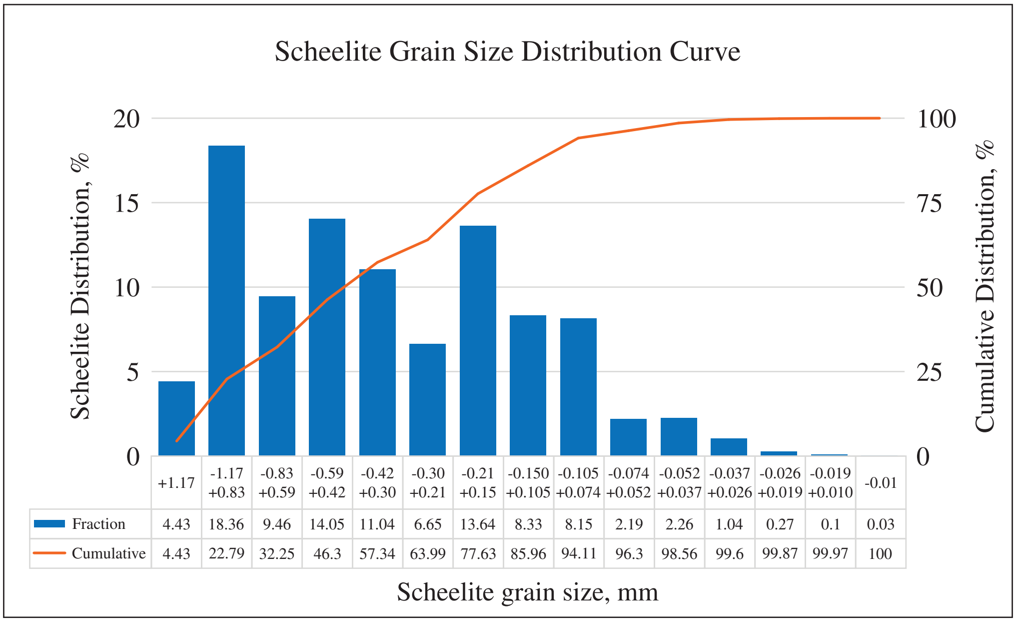
Microscopic observation on thin sections identified the following ore structures:

- dissemination: mainly seen in the scattered distribution of metallic minerals in the ore such as scheelite and pyrite, which can be classified as sparsely disseminated based on abundance.

Scheelite grain size distribution

Scheelite is the primary target recoverable mineral, and its grain size distribution is shown in Figure 7.2. Scheelite is medium- to coarse-grained with a cumulative distribution rate of 94.11% for the +0.074 mm particle size fraction. Considering only the grain size distribution, more than 95% of scheelite can be liberated. This is advantageous for the recovery of scheelite and to obtain a high-grade scheelite concentrate.

Figure 7.2: Scheelite grain size distribution



Source: HRI 2015.

7.2.3 Crushing and grinding test

HRI conducted tests to determine the ore's physical properties. The density was determined to be 2.75 t/m^3, the bulk density to be 1.70 t/m^3 and the natural angle of repose to be 33.94°. The ore's relative grindability was also evaluated, which involved comparing the time required to grind the ore to a specific fineness using the same equipment and conditions as comparable ores. The ore tested has a higher grindability than several comparable ores (Table 7.6). These relative grindability results are used to guide mill selection.

Table 7.6: Relative ore grindability

Comparable ore	Grinding fineness	Relative grindability
Fankou lead-zinc mine	P_{65}=74 mm	0.44
Dexing copper mine	P_{65}=74 mm	0.76
Yichun Luming mine	P_{65}=74 mm	0.79

Source: HRI 2015

Luoyang Mining and Mechanical Engineering Design Institute Co., Ltd. (LMMEDI) conducted a drop weight test (JK drop weight) and Bond Work Index tests on the ore. Beijing General Research Institute of Mining and Metallurgy Technology Group (BGRIMM) also conducted a Bond Work Index test on the ore. The results are shown in Table 7.7 and Table 7.8. The hardness indicators, A*b, SCSE and Wib, are all within the 'hard' range, indicating the ore is hard and difficult to grind. These test results provide a basis for grinding equipment selection.

Table 7.7: Results on JK drop weight test

DWi	DW_i	M_{ia}	M_{ih}	W_{ic}	Specific gravity
(kW h/m^3)	*(%)*	*(kWh/t)*	*(kWh/t)*	*(kWh/t)*	*(g/cm^3)*
7.11	56	20	15	7.7	2.75
A	**b**	**A*b**	**t_a**	**SCSE**	
				(kWh/t)	
61.7	0.63	38.87	0.37	10.11	

Source: Preliminary Design

Table 7.8: Results on Bond ball mill work index test

Institute	P_{100}	G_{bp}	F_{80}	P_{80}	W_{ib}
	(mm)	*(g/r)*	*(mm)*	*(mm)*	*(kWh/t)*
LMMEDI	125	0.948	2110	97.0	21.16
BGRIMM 1	125	1.0883	1800	89.8	18.4
BGRIMM 2	125	1.0887	1800	90.6	18.5

Source: Preliminary design

7.2.4 *Ore sorting test*

Scheelite exhibits luminescence and emits pale blue to yellow fluorescence under ultraviolet (UV) light. Based on this property, a color sorting machine can be used to pre-select scheelite ore. Waste rock that is not scheelite bearing can be removed, reducing the amount of ore for grinding and improving the feed ore grade. This, in turn, lowers processing cost. The terms 'X-ray intelligent ore sorting machine', 'intelligent ore sorting machine' and 'intelligent ore sorting machine' all refer to color sorting machines.

In 2019, Hollister conducted ore sorting tests using an X-ray intelligent ore sorting machine (model number: XNDT-104). The tests included pre-screening on a size fraction below -15 mm size and conducting two ore sorting tests on a size faction ranging from 15 mm to 75 mm. The results presented in Table 7.9 indicate that ore sorting is feasible, with the waste rock having a grade of no more than 0.035% WO_3 and a waste rejection rate of over 50% (15 mm to 75 mm fraction). However, due to the limited quantity of ore used in the experiment and the lack of assay results for the -15 mm size fraction, this test can only be considered exploratory.

Table 7.9: Results from Hollister's ore sorting test

Test	Product	Yield	Grade
		(%)	*(WO_3 %)*
First	-15 mm	15.75	/
	-75+15 mm concentrate	40.35	1.55
	-75+15 mm tailings	43.89	0.035
	ore	100.00	/
Second	-15 mm	15.75	/
	-75+15 mm concentrate	33.61	1.38
	-75+15 mm tailings	50.63	0.027
	ore	100.00	/

Source: Hollister 2019

In 2019, HRI used an X-ray ore sorter to pre-concentrate another ore sample with a particle size of 100 mm to +30 mm. The result was not satisfactory as the tailings grade did not meet the waste rejection criteria.

In 2019, HPY conducted additional ore sorting tests. The sample was crushed to a size of -60 mm and the -15 mm fraction was screened out. The 15–60 mm fraction was tested by the X-ray intelligent ore sorter. The larger-scale pilot test revealed that the ore sorting test met the expected target, with a waste rejection rate (tailing yield) of 32.4%, metal loss of 2.5% and tailings grade of <0.04% (Table 7.10). However, the crushing particle size of -60 mm was relatively fine, and the proportion of -15 mm particle size fraction was relatively high. By increasing the crushing size, the yield of -15 mm size fraction will be reduced, and the waste rejection rate can further be improved.

Table 7.10: Results from HPY's ore sorting test

Test run	Product	Yield	WO_3 Grade	Recovery[1]
		(%)	*(%)*	*(%)*
First trial	-15 mm	32.7	0.52	47.7
	-60+15 mm concentrate	31.6	0.55	48.8
	-60+15 mm tailings	35.8	0.034	3.4
	Raw ore	100.0	0.356	100.0
Second trial	-15 mm	32.7	0.52	38.6
	-60+15 mm concentrate	28.3	0.92	59.3
	-60+15 mm tailings	39.0	0.024	2.1
	Raw ore	100.0	0.440	100.0
Pilot test	-15 mm	32.7	0.52	33.9
	-60+15 mm concentrate	35.0	0.91	63.6
	-60+15 mm tailings	32.4	0.039	2.5
	Raw ore	100.0	0.501	100.0

Source: HPY 2019

1 Recalculated based on the yield of -15 mm and -60+15 mm size fraction products.

To further confirm the feasibility of ore sorting and determine the technical parameters, Jiaxin collected a 3 t sample and commissioned GNMRI to conduct integrated ore sorting and dense media separation (DMS) testwork.

The sample was crushed and screened into three size fractions: -120+50 mm, -50+15 mm and -15 mm. The first two size fractions were fed into an intelligent ore sorter. The ore-sorted concentrate was mixed with the -15 mm fraction. The combined fractions were further crushed for DMS tests.

The intelligent ore sorter was used for pre-concentration tests on the -120+50 mm size fraction under two different conditions and on the -50+15 mm size fraction under four different conditions. The results showed that as the waste rejection rate increased, the tailings grade increased while the concentrate recovery rate decreased. The results of the integrated test are presented in Table 7.11, with a waste rejection rate of 57.90% for the -120+50 mm size fraction and 72.78% for the -50+15 mm size fraction, respectively. The recoveries for the -120+50 mm and -50+15 mm size fractions are 94.33% and 85.63%, respectively. The combined size fractions relative to the raw ore have a waste rejection rate of 44.71%, tailings grade of 0.019% and metal loss of 6.09%. The results indicate that using the intelligent ore sorter for ore sorting is feasible.

Table 7.11: GNMRI's ore sorting test results

Size fraction (mm)	Product	Yield (%)		WO_3 grade	WO_3 recovery (%)	
		Trial	Raw ore	(%)	Trial	Raw ore
-120+50	Concentrate	42.10	7.76	0.405	94.33	22.80
	Tailings	57.90	10.68	0.018	5.67	1.40
	Feed	100.00	18.44	0.181	100.00	24.20
-50+15	Concentrate	27.22	12.73	0.297	85.63	27.43
	Tailings	72.78	34.03	0.019	14.37	4.69
	Feed	100.00	46.76	0.094	100.00	32.12
-15 mm			34.80	0.173		43.68
-120+15 mm concentrate			20.49	0.338		50.23
-120+15 mm tailings			44.71	0.019		6.09
Raw ore			100.00	0.138		100.00

Source: GNMRI 2023

The ore-sorted concentrate was combined with the -15 mm fraction and crushed to -15 mm and -7 mm, respectively. The 0.8 mm fines were screened out and the -15+0.8 mm and -7+0.8 mm fractions were subject to a DMS test (Table 7.12). The waste rejection rates for the -15+0.8 mm and -7+0.8 mm factions were 42.08% and 43.10%, respectively, with tailings grades of 0.059% and 0.050%, and metal losses of 9.24% and 8.21%, respectively.

The waste rejection rates by DMS were higher than 42% in both size fractions and tungsten recoveries were higher than 90%. The integrated ore sorting using the intelligent ore sorter and DMS achieved a waste rejection rate of 67.98% and a recovery rate of 85.85%. The test results indicate that DMS is technically viable. However, the report did not indicate the method, type and consumption of dense medium. SRK recommends conducting semi-industrial or industrial tests to further evaluate the technical and economic viability of this combined processes.

Table 7.12: Results of DMS test

Product	Yield (%)		WO_3 grade	WO_3 recovery (%)	
	Trial	Raw ore	%	Trial	Raw ore
-0.8 mm		10.52	0.475		18.60
-15+0.8 mm concentrate	52.97	47.40	0.409	88.65	72.16
-15+0.8 mm tailings	47.03	42.08	0.059	11.35	9.24
Feed		100.00	0.269		100.00

Product	Yield (%)			WO_3 recovery (%)	
	Trial	Raw ore	WO_3 grade	Trial	Raw ore
			%		
-0.8 mm		13.98	0.379		20.18
-15+0.8 mm concentrate	49.89	42.92	0.438	89.71	71.61
-15+0.8 mm tailings	50.11	43.10	0.050	10.29	8.21
Feed		100.00	0.263		100.00

Source: GNMRI 2023

With the development of ore sorting technology and the improvement of sorter machine manufacturing, the application of ore sorting for scheelite and non-ferrous metal ores is rapidly advancing. SRK considers that the application of ore sorting to this project is feasible and recommends conducting further industrial-scale tests. ENFI, the author of the Preliminary Design, also suggested conducting industrial-scale tests to determine the optimal feed ore particle size and other ore sorting parameters once the Phase I construction is completed. The industrial-scale tests will provide a basis for the design of the ore sorting circuit.

7.2.5 Flotation test

In November 2015, HRI conducted a processing test. Considering the ore properties, a jigging gravity separation test was initially performed, but the results were not satisfactory. Subsequently, a detailed flotation test was conducted, which involved a room temperature rougher circuit and a heated cleaner circuit.

In the rougher circuit test at room temperature, various optimization tests were conducted, including grind fineness test, comminution test, pulp concentration test, regulator type and dosage test, sodium silicate dosage test, collectors and dosage test, flotation residence time test, pulp temperature test and tests on other conditions. Based on these experiments, open circuit tests were carried out, followed by closed circuit tests with different flowsheets, including:

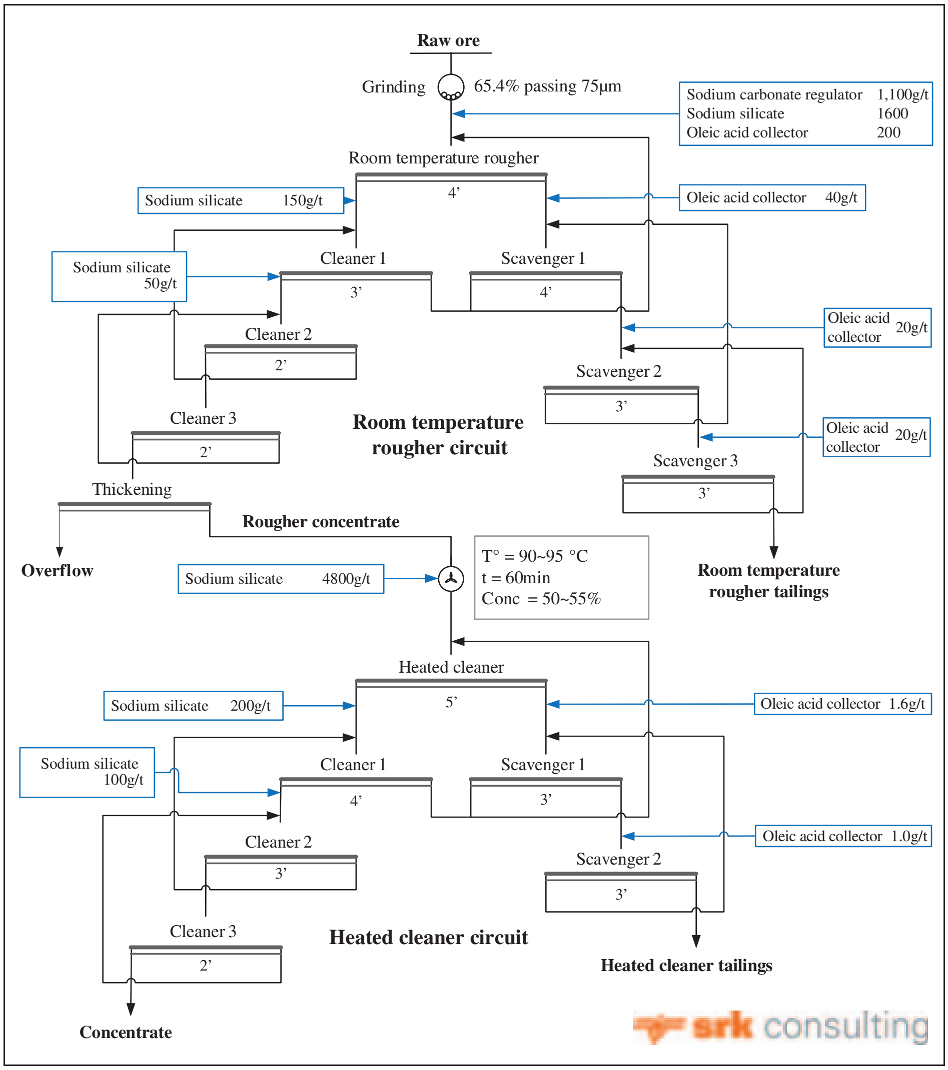
- conventional flowsheet consisting of 'one-stage rougher, three-stage cleaners and three-stage scavengers with middling sequential return to scavenger'
- tailings regrind flotation flowsheet
- middling regrind flotation flowsheet
- classified raw ore flotation flowsheet.

Based on test results, the conventional flowsheet of 'one-stage rougher, three-stage cleaners, and three-stage scavengers' was chosen as the optimized process (Figure 7.3). Following this conventional flowsheet, different ore grades were subjected to closed circuit tests, return water tests, and pilot-scale flotation tests. The expanded flotation test had a scale of 1,000 kg/d and ran continuously for 72 hours. Low-grade ore verification tests were also carried out (Table 7.13). The rougher index is influenced by return water to some extent, but is at an acceptable level. The rougher concentrate grade and recovery rate decreases with decreasing ore grade. The temperature of the flotation pulp had a significant impact on the rougher index, and the test indicated that it should not be below 20°C.

In the heated rougher-cleaner circuit test, several tests were conducted, including depressant test, sodium silicate dosage test, and open circuit and close circuit heated cleaner tests. Under conditions of a pulp concentration of 50%-55% and a pulp temperature of 90°C-95°C, a large amount of sodium silicate was used as a depressant and pre-mixed for 60 minutes. The flowsheet for the closed circuit test is shown in Figure 7.3 and the results are presented in Table 7.14. The results of the complete flowsheet are shown in Table 7.15. The tungsten concentrate obtained in the test had a grade of 66.55% WO_3, and the recovery rate of tungsten was 87.74%, indicating excellent performance.

Since the tailings from the heated cleaner circuit has a relatively high tungsten grade (0.23% WO_3), tests were conducted on the tailings to recover tungsten using gravity separation with a shaking table and magnetic separation with a wet strong magnetic separator. However, the results were not satisfactory. Beneficiation tests were conducted on the rougher concentrate at room temperature, but the tests did not yield satisfactory results. Therefore, the tailings from the heated cleaner circuit is considered the final tailings.

Figure 7.3: Flowsheet on closed circuit flotation test



Source: HRI 2015

Table 7.13: Results on closed circuit rougher flotation

Test	Product	Yield (%)	Grade (WO_3 %)	Recovery (WO_3 %)
Freshwater test	Rougher concentrate	3.97	5.16	92.22
	Tailings	96.03	0.018	7.78
	raw ore	100.00	0.222	100.00
Return water test	Rougher concentrate	4.24	4.79	90.99
	Tailings	95.76	0.021	9.01
	Raw ore	100.00	0.223	100.00
Pilot test (normal grade ore)	Rougher concentrate	4.13	4.85	91.71
	Tailings	95.87	0.019	8.29
	Raw ore	100.00	0.218	100.00
Pilot test (low-grade ore)	Rougher concentrate	3.18	3.34	86.74
	Tailings	96.82	0.017	13.26
	Raw ore	100.00	0.122	100.00

Source: HRI 2015

Table 7.14: Results on heated cleaner of rougher concentrate

Product	Yield (%)	Grade (WO_3 %)	Recovery (WO_3 %)
Concentrate	7.1	66.55	95.67
Tailings	92.9	0.23	4.33
Feed (Rougher concentrate)	100.0	4.94	100.00

Source: HRI 2015

Table 7.15: Results on complete closed circuit flotation flowsheet

Product	Yield (%)	Grade (WO_3 %)	Recovery (WO_3 %)
Concentrate	0.29	66.55	87.74
Total tailings, include:	99.71	0.027	12.26
Cleaner tailings	3.84	0.23	3.97
Rougher tailings	95.87	0.019	8.29
Raw ore	100.00	0.218	100.00

Source: HRI 2015

In December 2023, Hunan Fuduo Resources Technology Co., Ltd. completed laboratory testing for the mineral processing technology development of the Bakuta Tungsten Mine. Based on preliminary rougher flotation tests conducted at ambient temperature, both heated and ambient-temperature cleaning tests were carried out on the rougher concentrate.

In the ambient-temperature rougher flotation test, the grinding fineness was 66.5% passing 74 μm. Sodium silicate was used as inhibitors for silicate and carbonate minerals and the rougher concentrate was obtained using a "one rougher, two cleaners, three scavengers" flotation flowsheet.

For the heated cleaning of the rougher concentrate, the process began with concentration and reagent removal from the rougher concentrate, followed by heating and agitation with sodium silicate to further remove reagents. Final concentrate was then produced through a closed-circuit "one rougher, three scavengers, five cleaners" cleaning flowsheet.

For ambient-temperature cleaning, the rougher concentrate was first concentrated and reagent removal, followed by agitation with sodium silicate for reagent removal. The "one rougher, three scavengers, five cleaners" flowsheet was applied, with the tailings from the first cleaner being concentrated and returned to the reagent removal agitation tank to produce the final concentrate.

The overall results of these tests are summarized in Table 7.16. The results indicate that ambient-temperature cleaning of the rougher concentrate is feasible, which would significantly reduce energy consumption associated with heating. However, this approach yields a final concentrate with lower grade.

Table 7.16: Ambient temperature and heated cleaning flotation results

Conditions	Product	Mass Yield (%)	Grade (WO_3 %)	Recovery (WO_3 %)
Ambient temperature roughing circuit	Rough Concentrate	12.05	1.1	88.28
	Tailings	87.95	0.02	11.72
	Feed (ROM)	100	0.15	100
Heated cleaning circuit	Final Concentrate	1.86	62.15	95.54
	Cleaner Tailings	98.14	0.06	4.46
	Feed (Rough concentrate)	100	1.21	100
Ambient temperature roughing and high temperature cleaning	Final Concentrate	0.22	62.15	84.34
	Total Tailings	99.78	0.02	15.66
	Feed (ROM)	100	0.15	100
Ambient temperature cleaning circuit	Final Concentrate	2.11	53.94	96.45
	Cleaner Tailings	97.89	0.04	3.55
	Feed (Rough concentrate)	100	1.18	100
Ambient temperature roughing and room temperature cleaning	Final Concentrate	0.25	53.94	85.15
	Total Tailings	99.75	0.02	14.85
	Feed (ROM)	100	0.15	100

Water quality simulation tests and water recycling tests were also conducted. The results showed that excessively high concentrations of Ca^{2+} and Mg^{2+} in the flotation water significantly reduced both the WO_3 grade and recovery rate of the scheelite flotation concentrate, indicating that water with high levels of calcium and magnesium ions has a substantial negative impact on scheelite flotation.

The removal of Ca^{2+} and Mg^{2+} from the flotation water via a coagulation precipitation method proved effective. The process involved first adding lime to the tailings water for clarification, then adjusting the pH of the clarified water by adding sulfuric acid (or oxalic acid), and finally adding sodium carbonate to coagulate and precipitate calcium and magnesium ions from the water.

After treatment, the recycled process water was re-used continuously in flotation operations. The resulting scheelite flotation performance remained stable and was comparable to that achieved with fresh water.

7.2.6 *Flotation product quality*

The results of the multi-element chemical analysis on the flotation concentrate and tailings are presented in Table 7.17. The scheelite concentrate meets the requirements for a Class I product, and the levels of deleterious elements are within acceptable limits. Although arsenic was not assayed, it is presumed to be within the acceptable level due to the low arsenic content in the raw ore.

Table 7.17: Chemical composition of flotation product

	Content (%)		
Composition	Concentrate	Rougher tailings	Cleaner tailings
WO_3	66.55	0.02	0.251
P	<0.05	<0.05	0.83
S	0.21	<0.05	1.85
TFe	0.49	3.38	3.11
Cu	0.16	<0.05	0.326
Pb	0.12	<0.05	0.131
Zn	0.11	<0.05	0.075
Mo	0.009	0.008	0.1
CaO	20.27	1.84	50.34
MgO	0.23	2.36	2.08
K_2O	0.01	2.52	1.25
Na_2O	0.16	1.21	0.64
SiO_2	3.61	67.63	33.86
Al_2O_3	1.9	9.05	2.70
Au[1]	<0.1	<0.1	<0.1
Ag[1]	<0.1	<0.1	<0.1

Source: HRI 2015

1 Unit: g/t — grams per ton

7.2.7 Conclusions and recommendations

The principal ore minerals are scheelite and trace amounts of wolframite and tungstite. These minerals are the target minerals that will be beneficiated and recovered. Scheelite is coarse grained with 94% of grains larger than 74 mm, making it easy to grind and liberate. The ore has a high hardness index — the crushing and grinding cost will be relatively high.

The tests performed to date have demonstrated that it is feasible to pre-concentrate primary crushed feed using an ore sorter, with reasonable results obtained. The test results for a high-grade ore sample with 0.5% WO_3 achieved a waste rejection rate of 32.4%, tailings grade of 0.039% WO_3 and tungsten concentrate recovery of 97.5%. The test results for a low-grade ore sample with 0.14% WO_3 show a waste rejection rate of 44.7%. The grade of the tailings is 0.019% WO_3, while the tungsten recovery rate in the concentrate is 93.9%. Further industrial-scale testing is required to determine the optimal process parameters and technical indicators.

The ore-sorted concentrate and unsorted size fraction (-15 mm) were mixed and crushed to -15 mm and -7 mm. These samples were subject to DMS tests and yielded positive results. The waste rejection rate was greater than 42% and the tungsten concentrate recovery was greater than 90%. However, the tailings grade was relatively high (>0.05%). SRK recommends that the company conducts an on-site semi-industrial or industrial test to further evaluate the technical and economic viability of this method.

The flotation flowsheet of 'rougher at room temperature and cleaner at high temperature' is a commonly used processing method for scheelite. The rougher process is conditioned and performed at a pulp temperature of no less than 20°C, and the rougher concentrate is agitated and conditioned at a pulp temperature of between 90°C and 95°C followed by cleaner flotation. A laboratory-scale closed circuit test yielded good indicators of concentrate grade of 66.6% WO_3 and recovery rate of 87.7%.

The temperature has a significant impact on the flotation results. Low temperature reduces the dispersibility and activity of flotation reagents. The test has confirmed that the temperature of rougher pulp should not be lower than 20°C, and that of cleaner pulp should not be lower than 90°C. Under these temperature conditions, higher concentrate grade and recovery can be achieved. Ambient-temperature flotation can achieve recovery rates comparable to heated flotation, but the resulting concentrate grade is lower.

Return water also affects the flotation results, although its impact is not evident in laboratory settings. The high calcium and magnesium ion content in return water can significantly reduce the grade and recovery of the rougher concentrate. Treating tailings return water with a coagulation method can effectively eliminate the adverse effects of recycled water on mineral processing performance.

As the depressant of gangue minerals, the amount of sodium silicate used was 6,900 g/t, and the amount of sodium carbonate regulator used was 1,100 g/t, which are relatively high values. To reduce the consumption of these two reagents, SRK recommends conducting further experiments to explore substitutes for sodium silicate and sodium carbonate.

7.3 Processing plant

7.3.1 Production capacity and work system

According to the Preliminary Design, the processing plant will be developed in two phases. In Phase I, the nameplate capacity is 3.3 Mtpa or 10,000 tpd. In Phase II, the nameplate capacity will be raised to 4.95 Mtpa or 15,000 tpd.

The construction of the plant has accommodated this phased development. The nameplate capacity of the primary crushing, secondary crushing and concentrate dewatering circuits is 15,000 tpd, while the nameplate capacity of the tertiary crushing, grinding and flotation circuits is 10,000 tpd. The waste rejection rate of ore sorting is estimated at 33.3%, where 15,000 tpd feed ore is pre-concentrated to 10,000 tpd ore.

The processing plant is designed to operate 24 hours per day, 7 days per week on a three-shift basis. This is equivalent to 7,920 hours annually or 90.4% utilization.

7.3.2 Product plan and designed processing parameters

Table 7.18 presents the technical indices for Phase I and II. In Phase I, the designed throughput is 10,000 tpd. The tungsten recovery to tungsten concentrate was 83% (75% in H2 2025) and the predicted tungsten concentrate grade was 65% WO_3. In Phase II when the ore sorting system is installed, the designed throughput is 15,000 tpd. At a 33.3% waste rejection rate, 5,000 t of waste is rejected through the ore sorting system. The overall tungsten recovery to tungsten concentrate recovery rate is 78.85%.

Table 7.18: Designed processing parameters

Phase	Product	Capacity	Capacity	Yield	Grade	Recovery
		(tpd)	*(tpa)*	*(%)*	*(WO_3)*	*(WO_3)*
Phase I	Concentrate	28.22	9,313	0.282	65.00	83.00(Note 1)
	Tailings	9,972	3,290,687	99.718	0.038	17.00
	Raw ore	10,000	3,300,000	100.000	0.221	100.00
Phase II with ore sorting	Concentrate	42.94	14,171	0.286	65.00	78.85
	Tailings	9,957	3,285,829	66.380	0.050	14.05
	Waste	5,000	1,650,000	33.333	0.050	7.10
	Raw ore	15,000	4,950,000	100.000	0.236	100.00

Source: Preliminary Design, Jiaxin

Note:

1 Target recovery of 75% in H2 2025

Trial production began in November CY2024. By 31 December 2024, approximately 34,000 t of ore had been processed during the trial phase. Between January and June 2025, an additional 944,700 t of ore was processed. In H2 2025, the projected throughput is 1.65 Mt. Once the ore sorting circuit is commissioned in the third quarter of CY2026, the throughput will gradually increase. The target throughput for CY2026 is set at 3.80 Mt. From CY2027, the annual target throughput is expected to reach 4.95 Mt and will be maintained at this level until it begins to ramp down in 2040 (Table 7.19).

Table 7.19: Target throughput

Throughput	H2 2025	2026	2027	2028 onwards
Mt	1.65	3.80	4.95	4.95

Source: Jiaxin

Note: All years are calendar years.

7.3.3 Mineral processing flowsheet

The designed processing flowsheet includes the crushing circuit, ore sorting circuit, grinding circuit, rougher circuit, cleaner circuit and concentrate dewatering circuit.

The crushing circuit is a traditional three-stage crushing and one closed circuit flowsheet. To perform ore sorting and waste rejection, an ore sorting operation has been designed for screened and oversize ore materials produced from secondary crushing (Figure 7.4).

The grinding process is a closed circuit process.

The rougher process consists of 'one-stage rougher, three-stage scavenger and three-stage cleaner'. The rougher concentrate undergoes thickening and reagent removal, followed by heated cleaner with the flowsheet of 'one-stage rougher, three-stage scavenger and five-stage cleaner' (Figure 7.5).

The concentrate dewatering process is 'thickening-filtration-drying' (Figure 7.6).

The processing flowsheet is described as follows.

Crushing and screening circuit

The maximum size of the raw ore from the open pit is 1,000 mm. Ore is transported by trucks to the primary crushing station near the open pit. The ore is unloaded directly into the feed bin of a gyratory crusher. Adjacent to the feed bin, a crawler-type mobile hydraulic breaker is installed to break any oversize rocks.

The gyratory crusher reduces the size of the ore to less than 300 mm. The primary crushed ore is then transported to the stockpile area of the processing plant through a 2 km-long belt conveyor system.

The effective storage capacity of the primary crushed ore stockpile is 12,000 t, which serves as a buffer between processing and mining rates, ensuring a continuous production in the processing plant. Three heavy-duty apron feeders are installed below the primary crushed ore stockpile, feeding the ore to a secondary crushing cone crusher in the crushing plant through Belt Conveyor 1. Secondary crushed ore is transported through the Belt Conveyor 2 to the two sets of double deck circular vibrating screens in the screening plant for pre-screening.

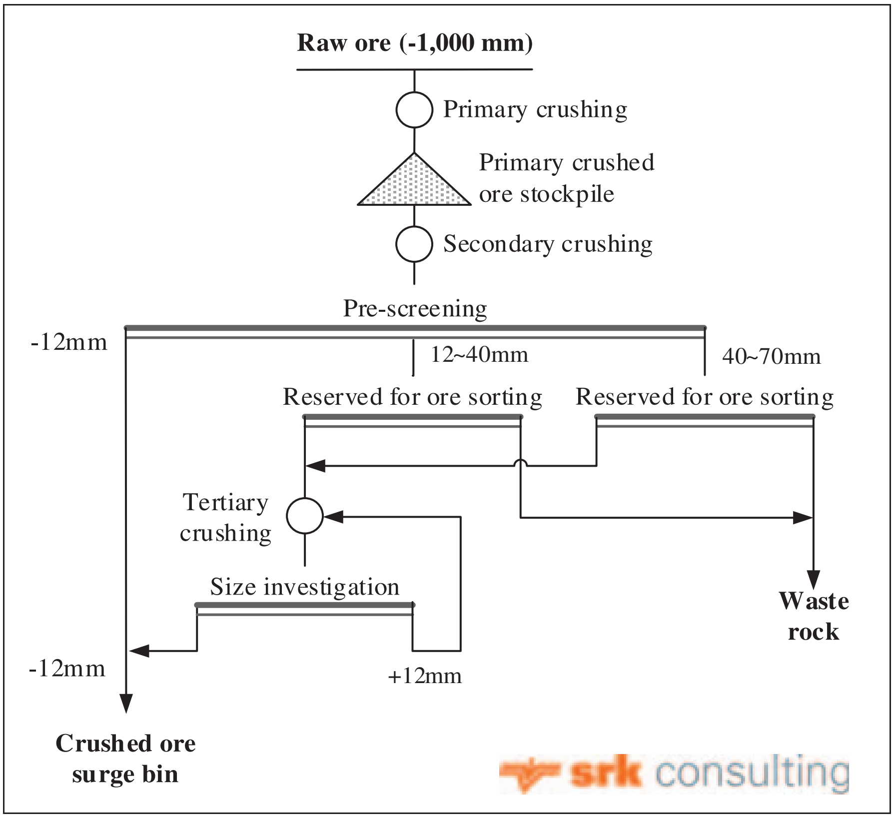
Before the ore sorting system is installed, the oversize of the double deck vibrating screens and intermediate products will be returned to the two tertiary crushing cone crushers in the crushing plant by the Belt Conveyor 3. The finely crushed material is sent back to the two sets of single deck circular vibrating screens in the screening plant by Belt Conveyor 4 for size inspection. The screen oversize material is combined with the pre-screening oversize material and transferred back for tertiary crushing by the Belt Conveyor 3 to form a tertiary crushing closed circuit.

The undersize ore materials from the double deck and single deck vibrating screens have a particle size of less than 12 mm. They are transferred to the surge bin through Belt Conveyors 5 and 6. The effective storage capacity of the ore surge bin is 10,000 t, which serves as a buffer between the crushing and grinding processes to ensure continuous production of the grinding operation. There are 14 flat gates under the ore surge bin, and the ore will be fed to two series of ball mills via two belt conveyors.

Ore sorting system

When the operation of the ore sorting system is commissioned in the third year, the pre-screening after secondary crushing will divide the secondary crushed ore into three size fractions: <12 mm, 12-40 mm and >40 mm (40-70 mm). The fine size fraction <12 mm is processed as the original flowsheet and sent to the ore surge bin by Belt Conveyors 5 and 6. The 12-40 mm and >40 mm size fractions will be conveyed to the buffer bin in the ore sorting facility. Four conveyor feeders will be installed under the coarse-grain bin to feed four ore sorters for pre-concentration, and eight conveyor feeders under the medium-grain bin to feed eight intelligent ore sorters. The concentrates of all ore sorters will be collected by a single belt conveyor and returned to Belt Conveyor 3 for tertiary crushing after two transfers. All the waste rejects from the sorting machine will be collected by another belt conveyor, transported to the reject stockpile, and then transported by vehicles to the WRD or TSF as materials for raising the dams. The particle sizes mentioned above are empirical data for the vibrating screen sieving sizes. Actual particle sizes will be determined by an industrial-scale test.

Figure 7.4: Crushing and ore sorting flowsheet

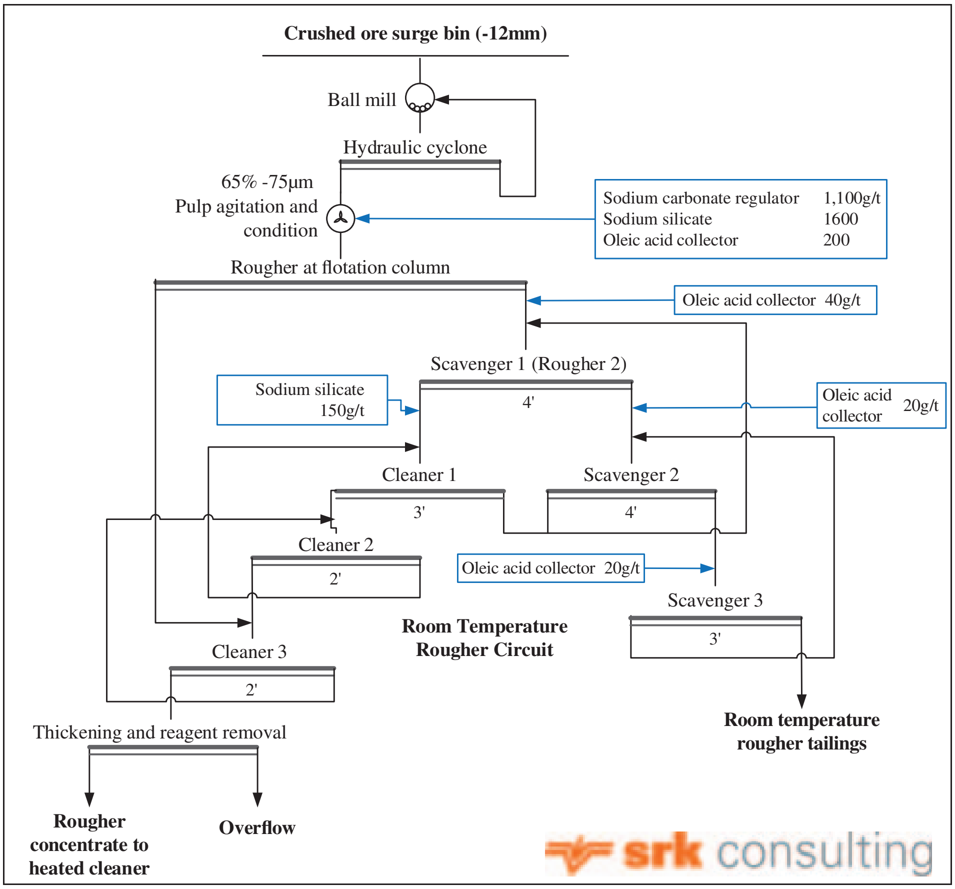


Source: modified after Preliminary Design

Grinding circuit and rougher flotation circuit

There are two grinding circuits. A ball mill, mortar pump and cyclone unit will form the grinding-classification closed circuit. The ore discharge from the ball mill will be classified by the cyclone, and the underflow will be returned to the ball mill. The combined overflow in two grinding series flows into an agitation tank before flotation, and will be agitated, conditioned and pumped to three flotation columns for roughing. The flotation columns can be used for both roughing and cleaning. The resulting concentrate flows by gravity to Cleaner 3 of the cleaner section in the rougher circuit. The flotation columns' tailings flows to the scavenger section, producing the final tailings after three stages of scavenging that is subsequently pumped to the TSF. Scavenger 1 concentrate will undergo three-stage cleaning to produce a rougher concentrate and middling. The middling returns to the Scavenger 1. The rougher concentrate undergoes thickening and reagent removal, and will be transferred to the heated cleaner circuit.

Figure 7.5: Grinding and rougher flowsheet

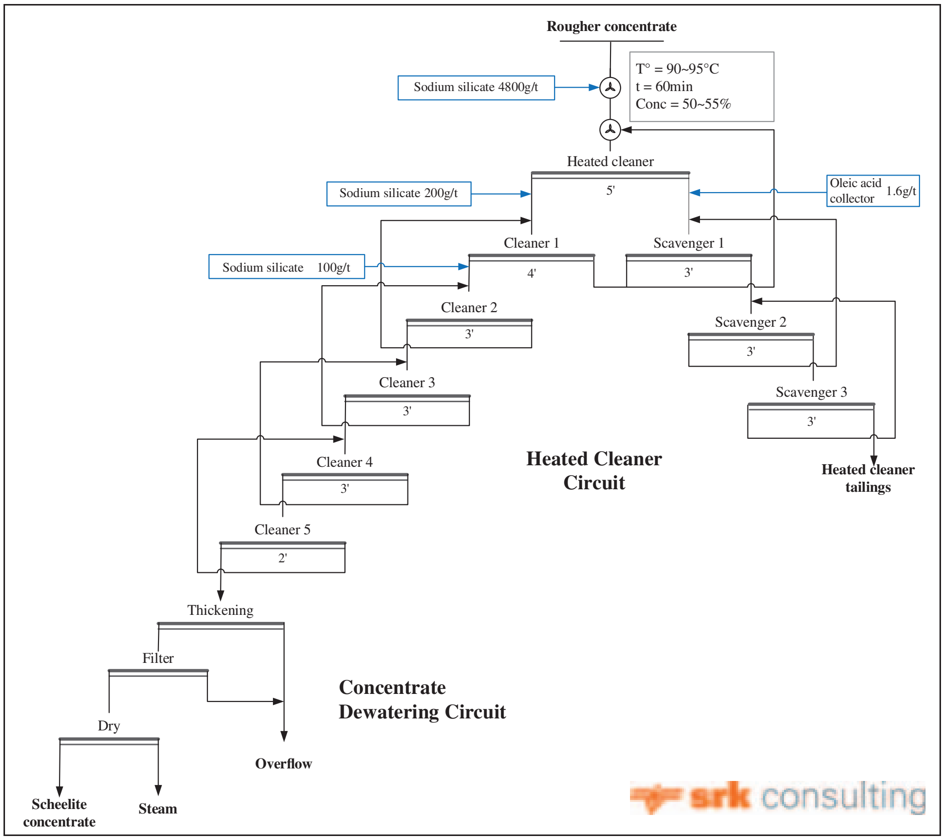


Source: modified after Preliminary Design

Heated cleaner circuit and concentrate dewatering

The concentrate ore pulp in the room temperature flotation circuit will be pumped to a thickener and concentrated to a grade of 50-55% (Figure 7.6). The overflow will be sent to the concentrate overflow treatment station, and the underflow will be pumped to six heated agitation tanks that are steam-heated to over 90°C. The heated underflow is then pumped to another agitation tank for the addition of flotation reagents and pulp conditioning, and subsequently enters the heated cleaner circuit. The cleaner circuit adopts the flotation flowsheet of 'one-stage rougher, three-stage scavenger and five-stage cleaner'. The cleaner tailings will be combined with the tailings produced in the room temperature rougher circuit and pumped to the TSF. The final flotation concentrate will be pumped to a thickener. The underflow will be fed to a plate-and-frame filter press. The resulting filter cake will be sent to a steam dryer through a spiral conveyor. The dried product is then sent to a bucket elevator through a spiral conveyor, mixed in a mixer and packed in a 1 t bag by an automated packing machine for storage and transportation. Thickener overflow and filter press filtrate containing sodium silicate and flocculants will be returned to the cleaner circuit for pulp conditioning and to serve as rinsing water.

Figure 7.6: Cleaner and concentrate dewatering flowsheet



Source: modified after Preliminary Design

7.3.4 Processing facilities and equipment

The processing plant is located to the south of the open pit, at a lower elevation. The distance between the mining area and the processing plant is 2.3 km. The primary crushing station will be located near the open pit and is to be connected to the processing plant through a 2 km long conveyor belt system.

There is an elevation difference of approximately 200 m between the two facilities. When the crushed ore is transported downhill, energy will be generated through this process. The belt conveyor is designed with power generation capability and connected to the mine power grid. The expected power generation capacity is 0.375 kWh/t ore.

The processing plant area will include the primary crushed ore stockpile, crushing plants, screening plants, surge bins, main production plant (grinding, flotation and concentrate dewatering), chemical preparation and storage facilities, major electrical/power transformers substation, mineral processing and analytical laboratory, machine repair workshop, integrated warehouse, concentrate thickening and pumping station, concentrate overflow sedimentation tank, high-level freshwater tank and recycled water tank, open pit production water booster pump station, domestic water purification station, circulating cooling water pump station, domestic sewage treatment station, processing plant office building and processing plant boiler room. A suitable area for the ore sorting facility and WRD is also reserved to the west of the screening plant.

The return water and fire protection water tanks will be located on the western hillslope of the production water booster pump station. It is 80 m from the primary crushed ore stockpile to the north. The designed tank foundation level is 1,302.8 m, and water will flow by gravity through the pipe network to the processing plant and accommodation camp.

The processing plant equipment is listed in Table 7.20, though the ore sorting system has not yet been determined as it is yet to be designed. SRK observed that foundations for the main equipment had been completed. Installation of most of the processing and auxiliary equipment has been completed. In July 2024, the processing plant equipment began individual testing. The commissioning engineers are already on site and other staff have been recruited and are currently undergoing training.

Table 7.20: Major processing equipment

No.	Equipment	Model and specification	Quantity	Generator *(kW)*
		Crushing system		
1	Gyratory crusher	G4369HD	1	400
2	Heavy-duty apron feeder	BZOK2400-7	1	90
3	Hydraulic breaker	–	1	55
4	Main belt conveyor	B = 1,200 mm, L = 1,997 m, Q = 1,200 t/h	1	710
5	Heavy-duty apron feeder	1,500 mm × 4,500 mm	3	45
6	Conveyor feeder	1,400 mm × 10,700 mm	1	22
7	Secondary crushing cone crusher	HP800	1	500
8	Conveyor feeder	–	2	30
9	Tertiary crushing cone crusher	HP800	2	500
10	Conveyor feeder	2,000 mm × 5,000 mm	4	30
11	Heavy-duty double deck vibrating screen	2YAQ3073	2	60
12	Circular vibrating screen	YA3073	2	2×30
		Ore sorting system[1]		
13	Belt conveyor in ore sorting facility	B = 1,000 mm, L = 14-151 m	8	–
14	Intelligent ore sorter	XNDT-104	12	–
15	Conveyor feeder	B = 1,000 mm, L = 4,500 mm	12	–
16	Air compressor	UD200-8	4	–
		Grinding system		
17	Electric flat gate	350 mm × 500 mm	14	1.1
18	Belt Conveyor 1-7	B = 1,000-1,200, L = 70-236 m	8	785 in total
19	Ball mill	MQY5.5 × 7.5 m	2	4,500

No.	Equipment	Model and specification	Quantity	Generator (kW)
20	Pulp pump	14/12ST, Q = 1,247 m^3/h, H = 37 m	3	355
21	Cyclone unit	Φ660-6	2	
		Flotation system		
22	Agitation tank	Φ6 × 6 m	1	75
23	Pulp pump	14/12ST, Q = 1,251 m^3/h, H = 24 m	2	250
24	Flotation column	Φ5.0 × 10 m	3	–
25	Flotation machine	KYF-100 m^3	6	132
26	Flotation machine	KYF-20 m^3	6	45
27	Pulp pump	6/4D-AH, Q = 137 m^3/h, H = 24 m	2	30
28	Pulp pump	4/3C-AH, Q = 89 m^3/h, H = 24 m	2	11
29	Pulp pump	8/6E-AH, Q = 375 m^3/h, H = 17 m	2	45
30	Thickener	NZ-Φ38 m	1	7.5
31	Heated agitation tank	Φ5.5 × 5.5 m	6	11
32	High concentration agitation tank	Φ2.5 × 2.5 m	1	11
33	Pulp pump	3/2E-AH, Q = 30 m^3/h, H = 18 m	12	–
34	Pulp pump	2/1.5B-AH	2	–
35	Flotation machine	BF-8 m^3	20	30
36	Blower	C200-1.5, 200 m^3/min	2	110
37	Air compressor	UD250-7.5, 45 m^3/min	3	250
		Concentrate dewatering system		
38	Thickener	NT-Φ12 m	1	7.5
39	Plate-and-frame filter	CJZH1000/60/40	1	11
40	Belt conveyor	B = 1,000 mm, L = 11 m	1	4
41	Spiral conveyor	LS315×l8, Q = 4-5 t/h	2	30
42	Dryer	WH-81.00	1	5.5
43	Bucket elevator	TH315×9.5	1	7.5
44	Horizontal ribbon mixer	LHY-10	1	5.5
45	Portion packaging machine	LCS-1000-Z II	1	1.5

Source: Preliminary Design

1 Actual model and quantity of ore sorting equipment to be determined after the industrial-scale tests.

7.3.5 Reagent and material consumption

There are only three types of reagents (Table 7.21). Of these, the consumption of sodium silicate is significant. Jiaxin has already engaged a sodium silicate manufacturer in China to establish an on-site sodium silicate production plant to fulfill the expected demand. The consumption of flocculant has not yet been estimated, but typically the unit consumption does not exceed 10 g/t of ore. To minimize the effect of return water, flocculant consumption should be reduced as much as possible, or flocculant should not be used at all.

The total water consumption for processing is 26,292 m^3/d, consisting of 6,270 m^3/d of freshwater, 1,843 m^3/d of circulation water and 18,179 m^3/d of return water. The utilization rate of return water is 76.15%.

Table 7.21: Reagents and material consumption

Name	Unit consumption[1]	Daily consumption[1]	Annual consumption[1]
	(g/t ore)	*(kg/d)*	*(tpa)*
Steel ball	1,000	10,000	3,300
Ball mill liner	200	2,000	660
Engine oil	35	350	116
Lubricant	50	500	165
Sodium silicate	6,900	69,000	22,770
SC[2]	1,100	11,000	3,630
HW[2]	280	2,800	924

Source: Preliminary Design

1 Consumption calculated based on 10,000 tpd flotation capacity.

2 SC — sodium carbonate regulator; HW — a liquid oleic acid collector developed by HRI.

7.3.6 Trial production and future production plan

The processing plant has made significant progress, with all components except the ore sorting system completed and having successfully undergone trial operations since November 2024. Commissioning began in the first quarter of 2025, enabling the gradual establishment of the full mineral processing circuit. By the second quarter of 2025, continuous full-process production was achieved, marking a major milestone in plant readiness. Since then, ongoing optimization efforts have focused on refining process conditions to steadily improve concentrate grade and recovery rates.

Key optimization initiatives include the successful transition from the originally designed heated cleaning to ambient-temperature cleaning of the rougher concentrate, while retaining the efficient “one rougher, three scavengers, five cleaners” flotation flowsheet. This change represents a major operational advancement, offering substantial energy savings and improved sustainability. The optimized process involves concentrating the rougher concentrate to 65–70% solids, followed by the addition of sodium silicate and high-intensity, prolonged stirring at ambient temperature to enhance reagent removal. The pulp is then diluted to 30% solids in the cleaning conditioning tank prior to cleaning, with middlings returned sequentially through the circuit. While current ambient-temperature flotation recovery is below the target of 83%, the result is positive and provides a strong foundation for further improvements. Continuous optimization, particularly focused on winter operating conditions, reagent regimes, and process control is underway to close the performance gap and achieve design targets.

The development of the ore sorting pilot plant is progressing on schedule, with construction and equipment installation planned between the second half of 2025 and first half of 2026. Industrial-scale trials are set for the second half of 2026, culminating in full installation of the ore sorting system and planned commissioning in early 2027. Ore sorting represents a strategic opportunity to increase effective throughput, reduce energy and water consumption and lower operating costs. Although the technology is new to the site, encouraging results from laboratory testing support its potential. The upcoming industrial trials will generate critical performance data, including waste rejection and recovery rates which are essential for validating the technology and ensuring reliable, scalable implementation.

Water management is another area of active advancement. Currently, the tailings pond contains limited volumes of tailings and a clarified water zone has not yet formed, necessitating reliance on fresh water for all operations. This dependency temporarily constrains processing capacity. Due to the cold climate, tailings freezing is expected to delay the availability of return water until the following spring. Once available, return water is planned for use in the rougher flotation stage, while fresh water will be reserved for the more sensitive cleaning circuits. To proactively address potential water quality challenges, SRK recommends proactively monitoring of calcium and magnesium ion levels in the return water. This will allow for timely evaluation of their impact on flotation performance, informed decisions on water treatment needs, and the development of appropriate engineering solutions, ensuring stable and efficient operations once full water recycling is implemented.

7.3.7 Conclusions and recommendations

- The designed nameplate capacity of the processing plant is 4.95 Mtpa with a design utilization of 90.4%. The processing plant is expected to be constructed in two phases. The nameplate capacity of Phase I is 3.3 Mtpa. An ore sorting facility will be installed in Phase II to increase the nameplate capacity to 4.95 Mtpa.

- Given the planned installation of an ore sorting circuit in Phase II, it is reasonable to adopt the crushing-grinding flowsheet of 'primary crushing, secondary crushing, pre-screening, ore sorting, closed circuit tertiary crushing and closed circuit grinding' flowsheet. This is a conventional flowsheet which is mature and stable.

- The results from the ore sorting tests indicate that ore sorting is viable. When the feed ore grade decreases from 0.5% to 0.14%, there is an improvement in the waste rejection rate from 32.4% to 44.7%. The reject grade decreases from 0.04% to 0.02%. The recoveries are all above 93.9%. For the designed feed grade, the use of an ore sorter for pre-concentration can achieve the designed waste rejection parameters: a waste rejection rate of 33.33%, a reject grade of less than 0.05% and a metal loss rate of 7.1%. There are notable performance differences between ore sorters from different manufacturers — SRK recommends conducting experiments with multiple ore sorting machines produced by different manufacturers to identify the most suitable equipment for on-site industrial tests.

- The flotation flowsheet of 'room temperature rougher and heated cleaner' is used to recover scheelite. This is a mature technique without major defects. Although ambient-temperature cleaning is feasible in the laboratory, it is susceptible to temperature variations and requires a continuous optimization process from summer to winter, including adjustments to operating conditions and reagent regimes. A large amount of sodium silicate, possible flocculants and other unavoidable ions will be present in the processing return water which will have a negative impact on scheelite recovery. Although the laboratory testing showed a weak impact of return water, the quality of processing return water remains uncertain. In future production, it will be necessary to continuously monitor the impact of return water on the processing indices and treat the return water whenever necessary.

- To date, the processing plant has been built to a high standard. The processing plant was successfully constructed and commenced trial operations by November 2024, achieving continuous full-scale production by the second quarter of 2025. While the current recovery rate during the trial production period is below the design target of 83%, this provides a solid baseline for ongoing performance improvement. A comprehensive optimization program is now underway, focusing on refining operating practices, reagent regimes, and process control to steadily enhance recovery toward design expectations.

- While plant throughput is currently limited by fresh water availability, these constraints are expected to be alleviated in spring 2026 with the commissioning of return water supply from the tailings pond, enabling improved processing capacity.

- Preliminary assessments indicate that return water from the tailings pond contains residual sodium silicate, flocculant, and calcium/magnesium ions, which could potentially affect flotation performance. However, this presents an opportunity to proactively evaluate water quality and develop effective treatment strategies. Further production-scale testing will be conducted to assess the impact and optimize water management solutions, ensuring stable and efficient operations once full water recycling is implemented.

8 INFRASTRUCTURE

8.1 Introduction

This section provides a description of the major infrastructure, following the design set out in the Preliminary Design and technical studies by VNIItsvetmet and ANTAL. It also evaluates the suitability and sufficiency of this infrastructure to support the LOM plan. The key infrastructure being developed includes power and water supplies as well as surface support infrastructure, installations and buildings.

8.2 Power supply

The Shelek Central Substation, a regional power station with 120 MW capacity, is located 119 km from the Project. A 110 kV overhead transmission line distributes power from the Shelek Central Substation to the Chundzha Substation, which is south of the Project region. Jiaxin has obtained permission from the local power bureau to connect and supply power to the mine area by installing a new 7 km overhead power line branching from the existing 110 kV transmission line.

The principal step-down/transformer substation is located at the processing plant, converting the transmission voltage from 110 kV to 10 kV and serving as the main powerhouse for the Project. Two 32,000 kVA 110 kV to 10 kV transformers have been installed. Major feed lines branching from the principal step-down transformer substation distribute power to the primary crushing station, main production plant, crushing plant, mining and accommodation area, TSF and to the water withdrawal and diversion from Charyn River. An extra feed line has been reserved for the future ore sorting facility.

ENFI has conducted a power load analysis as part of the Preliminary Design, based on the specification and numbers of selected equipment, general site plan for the Project and other technical requirements provided by Jiaxin. A summary of the power load analysis is shown in Table 8.1 and a list of the major equipment is shown in Table 8.2. Detailed specifications on major mining and processing equipment are shown in sections 6.6.2 and 7.3.4, respectively.

Table 8.1: Power load analysis summary

Equipment connected capacity	30,093.66 kW
Equipment operating capacity	28,738.36 kW
Calculated active power	19,732.18 kW
Calculated non-active power	6,364.35 kVar
Calculated apparent capacity	20,733.16 kVA
Power factor	0.95 (0.98 after compensation)
Annual consumption	12,320 × 10^4 kWh

Source: Preliminary Design

Table 8.2: Major equipment's power load

Equipment	Power *(kW)*	Quantity
Ball mill	4,100	2
Air compressor	250	3
Blower	250	3
Pulp pump	355	3
Cone crusher	600	3
Gyratory crusher	315	1
Long distance conveyor belt	710	1
TSF return water pump	280	3

Source: Preliminary Design

As required by the Kazakhstani Government, four sets of diesel generator units (400 V, 400-800 kW) have been installed as emergency power sources for the mine/open pit, TSF, processing plant and accommodation camp, respectively, in case of maintenance or failure of the power grid.

The principal step-down substation was completed. The Chundzha Substation refurbishment was completed in the first quarter of CY2024. The refurbishments of the Shelek Central Substation and on-site step-down substation were completed in August 2024. The Project was connected to the main grid, providing the required 30 MW power in late October 2024.

8.3 Water supply

The Project is located in an arid area. Annual precipitation averages 442.4 mm (rain) and 64.22 mm (snow) and peaks from March to May. Limited underground water has been intercepted during various drilling programs, including geological exploration in the open pit area, geotechnical drilling in the conveyor belt tunnel area and geotechnical drilling in the TSF area. The Company has negotiated with the Kazakhstani Government to abstract river water from the Charyn River, a major river running 22 km southeast of the Project.

The total water consumption for the Project, including return water from the processing plant and TSF, is forecast at about 27,500 m^3/d. In the Preliminary Design, the amount of freshwater was estimated at about 8,000 m^3/d, assuming a 75% return water utilization rate. In a 2019 water consumption estimation completed by VNIItsvetmet, the amount of freshwater was calculated at about 11,160 m^3/d assuming a more conservative 53% return water utilization rate. Considering the lack of reliable hydrological and meteorological information in the design phase, and that a higher withdrawal capacity would be beneficial to the Project to manage uncertainty, the Company has adopted 11,160 m^3/d as the basic freshwater requirement. With an additional 20% surplus, the Company has applied to the Kazakhstani Government for a 13,000 m^3/d freshwater withdrawal from the Charyn River. A summary of the water balance for the Project is shown in Table 8.3.

ANTAL has been contracted to design the facility to abstract water from Charyn River. The design includes two walled pumping stations. The first pumping station, including a water withdrawal and primary booster pump, has been established immediately next to the Charyn River water source at 773 masl. A secondary booster pump station has been located next to the A2 highway at 1,001 masl. Pumped water is stored in water tanks located on a small hill at 1,308 masl above and north of the processing plant. The withdrawal and booster water pumps will have a maximum of 16 working hours daily. The total length of the water supply pipelines is 21.621 km, and these are placed 1.2 m below the surface. The pipeline route is shown in Figure 8.1.

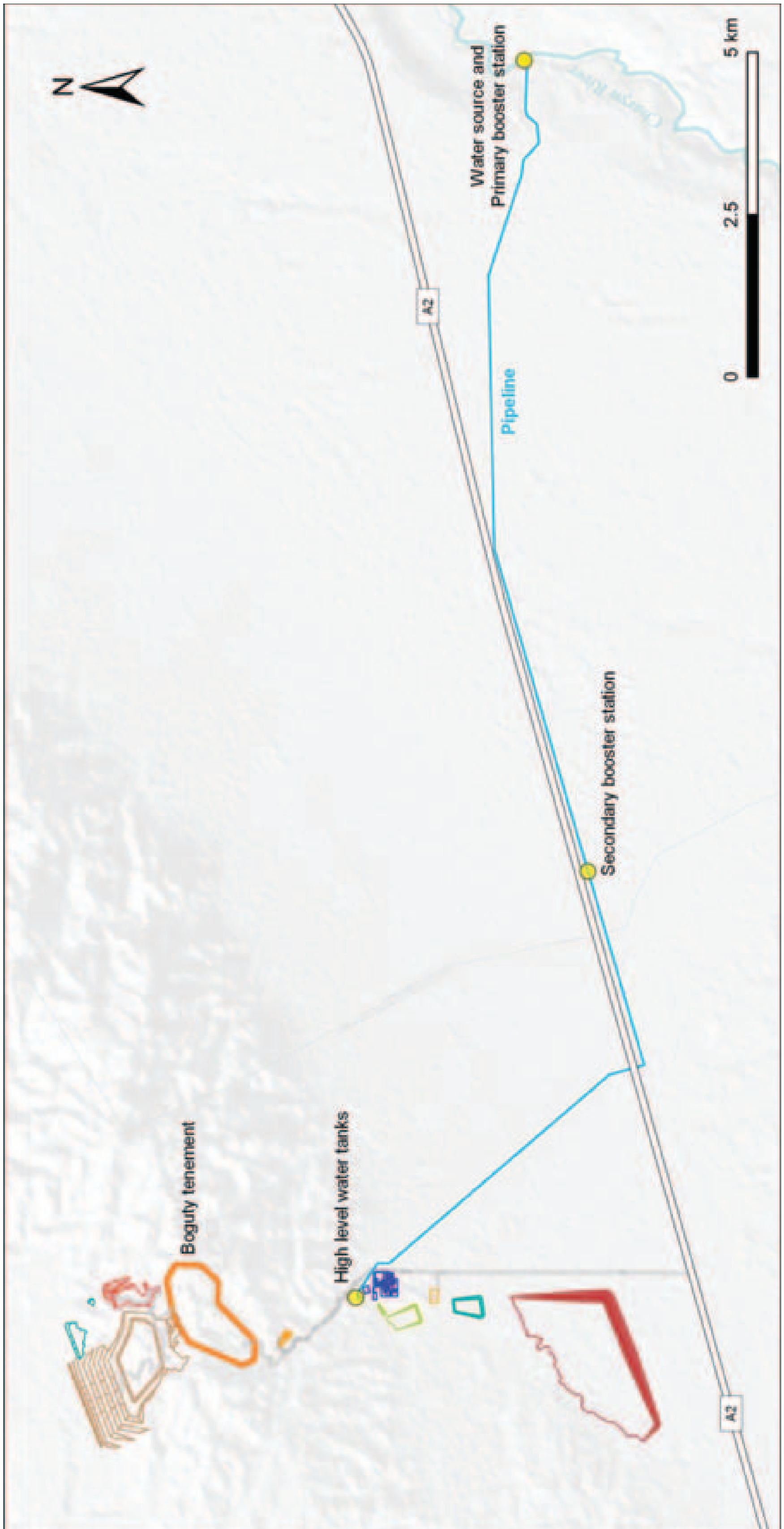
The freshwater is used directly for industrial purposes, including fire protection. For domestic uses, the freshwater intake is pumped to the Water Treatment Plant in the processing plant, where it undergoes sedimentation, and is filtered with sands and active carbon, and sterilised with reagents such as calcium hydroxide and chlorine dioxide.

Table 8.3: Water balance for the Project

Facility and equipment	Total daily water consumption (m^3/d)	Water supply (m^3/d)				Water discharge (m^3/d)				Note
		Production freshwater	Domestic water	Circulation water	Return water	Circulation water	Return water	Loss	To sewer	
Mining operation	303	303						303		
Mining boiler room	48	48						24	24	Sewer discharge collected to processing plant
Mining subtotal	***351***	***351***						***327***	***24***	
Processing water use	22,492	4,313			18,179		18,179	4,313		76.15% return water utilization rate
Water pump sealing water	720	720						720		
Reagent preparation water	360	360						360		
Equipment circulation cooling water	1,920	77		1,843		1,843		52	25	Sewer discharge collected to processing plant
Ground rinsing water	200	200						200		
Processing boiler room	600	600						408	192	
Processing plant subtotal	***26,292***	***6,270***		***1,843***	***18,179***	***1,843***	***18,179***	***6,053***	***217***	
Accommodation camp subtotal	***100***		***100***					***5***	***95***	Sewer discharge collected and treated for greening and car wash
Maintenance subtotal	***20***		***20***						***20***	
Greening and car wash subtotal	***115***				***115***			***115***		
Unforeseen usage	***660***	***660***						***660***		10% of foreseen usage
Total water consumption	**27,538**	**7,281**	**120**	**1,843**	**18,294**	**1,843**	**18,179**	**160**	**356**	

Source: Preliminary Design

Figure 8.1: Water pipeline route for the Project



Source: modified after ANTAL and Preliminary Design

The two major external pumping stations, as well as the installation of pipelines, water withdrawal and pumping equipment, and water tanks near the processing plant, were all completed (Figure 8.2 & Figure 8.3). The pipes had been installed and the excavated areas backfilled by the first quarter of 2024. Access to water commenced in July 2024.

Figure 8.2: Water source in Charyn River and water withdrawal pumps

Source: SRK site visit August 2023

Figure 8.3: Primary and secondary booster pump stations

Source: SRK site visit July 2024

8.4 Accommodation camp

A temporary accommodation camp consisting of single-storey steel modular buildings and cement buildings is located in the low-lying area between the TSF and processing plant (Figure 8.4). Despite being temporary, the buildings are constructed to high standards and well-equipped. The outdoor area is paved and greened. Water, power and heating supplies have been established. Staff restaurants are served with both Kazakh and Chinese food. An indoor entertainment room is also set-up. The temporary living area consists of 94 accommodation rooms and a number of offices and meeting rooms. SRK was impressed with the quality of the buildings and considers it to be one of the best mining camps in the region.

Figure 8.4: Temporary accommodation camp

Source: SRK site visit August 2023

A permanent accommodation camp accommodating 240 personnel has been designed for construction approximately 600 m south of the open pit. The construction work proposed in the Preliminary Design involved a cut-and-fill area and the development of 18 single-storey buildings (Figure 8.5). To reduce the volume of earthworks, the permanent accommodation camp has been redesigned to use only the planned cut area and the construction of six three-storey buildings. The earthworks for the permanent accommodation camp began in June 2023 and construction is expected to be completed within 2 years of production is commissioned. At that time, the temporary accommodation camp will be converted for processing use.

Figure 8.5: Earthworks for permanent accommodation camp

Source: SRK site visit March 2025

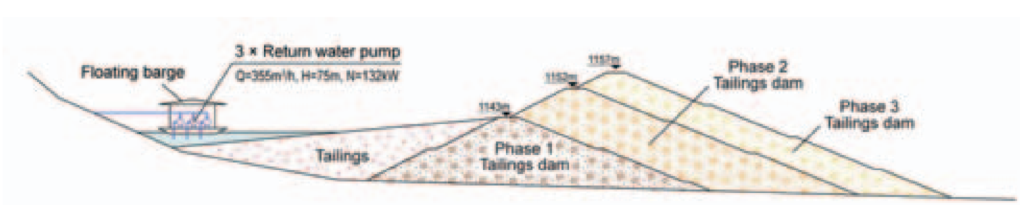
9 TAILINGS STORAGE FACILITY

9.1 Introduction

The TSF is located on a gentle slope approximately 3 km southwest of the processing plant. It features an open layout and is categorised as a hillside storage facility. Three embankments are being constructed against the hillside (Figure 3.2). The TSF will cover an area of approximately 3.5 km^2.

The TSF will be constructed in three phases in accordance with the design report (ANTAL, 2020). The embankment built in Phase 1 (1,143 m) will be progressively lifted in Phase 2 (1,152 m) and Phase 3 (1,157 m) (Figure 9.1). The designed total storage capacity is 39.2 Mm^3 to provide sufficient storage for tailings over the LOM.

Figure 9.1: Schematic cross section of TSF embankment showing Phase 1, Phase 2 and Phase 3 embankment raises



Source: modified after Preliminary Design

9.2 Construction status

During SRK's site visit in September 2023, construction of the embankment for the TSF was in progress. Rockfill was being transported from a nearby source. The embankment had reached a height of 20 m, with a planned completion height of 26 m (Figure 9.2).

The rockfill has been placed in 1.0 m thick layers and compacted using a smooth drum vibratory roller with eight passes (Figure 9.2). Compaction densities have been tested using the water replacement method, with three tests conducted for every 5,000 m^3 of fill placed or when issues were identified. The maximum size of boulders in the fill should not exceed two-thirds of the layer thickness (<67 cm). SRK observed that efforts were made to remove large boulders, but that some remained within the exposed layer.

Construction of the graded underlying soils has commenced at the toe of the southern embankment's upstream slope, where protection between the high-density polyethylene (HDPE) lining and the rockfill embankment is needed (Figure 9.2).

The construction of stormwater diversion channels on the northern side of the TSF was completed by December 2023.

The construction of the embankment of Phase I TSF was completed. The liner up to 1,128 m was completed in the second half of 2024 and the remaining work is scheduled for the second half of CY 2025. The TSF was put into operation in November 2024.

Figure 9.2: TSF

Source: SRK site visit June 2025

9.3 Phase 1 TSF characteristics

The Phase 1 TSF characteristics are listed in Table 9.1 (ANTAL, 2020).

Table 9.1: Phase 1 TSF design characteristics

	Design and construction
Designer	ANTAL, 2020
Year of construction	Under construction
	TSF configuration
Tailings dam type	Downstream raise
Length	Approximately 1.2 km
Width	Approximately 2.8 km
Perimeter distance	Approximately 3.6 km
Footprint area and maximum height	116.81 ha (tailings coverage footprint area)
Embankment geometry	Upstream inner slope 1V:2H with one step-in. Overall outer slope 1V:2.5H, two step-ins or benches. Embankment crest is 6.0 m wide.
Raise method	Downstream raise for Phases 1, 2 and 3
Phase 1 construction	Provide sufficient storage for the initial 3 years of operation with a maximum dam height for Phase 1 of 24 m.
Site selected	TSF is located on a gentle slope with an eastern and southern embankment.
	Tailings storage
Slurry delivery (processing plant to TSF)	Two steel pipes (480 mm diameter, 14 mm wall thickness), one operating and one in reserve. Slurry from the processing plant gravitates to the TSF. Energy dissipation stations will be located along the pipeline due to gradient from the processing plant to the TSF (120.30 m height difference).
Slurry distribution in TSF	The main delivery pipes will be connected to two slurry ring main pipelines (ring mains) either side of the TSF (length 2,060.5 m)
Deposition method	Multiple spigot system located along the ring mains for discharge of tailings.
Deposition rate	1,111 m^3/h over 3.2 years
Design capacity	9.725 Mm^3 (to elevation 1,141.00 m)
Target dry density/final placed in situ tailings density	1.35 t/m^3
Tailings slurry concentration	30.5%
Tailings geochemistry	Acid generating
Tailings beach slope	1V:100H

Water management

Decant system	Floating barge pump with capacity of 710 m^3/h
Seepage control	A lined toe drain is planned for the downstream embankment slope
Total freeboard	Impoundment embankment until full supply level (FSL) (1,141 m) reached, plus 2 m (1,143.00 m)
Return Water Dam	No return water dam. Supernatant water stored on the TSF and pumped directly to the processing plant via a floating barge pump.

Source: compiled by SRK

9.4 Tailings characteristics

The composition of the tailings is provided in Table 9.2. The tailings consists mainly of silicon dioxide — silica (61.4%), aluminum oxide — alumina (12.5%), calcium oxide (5.2%), and iron oxides (4.7%). Oxides of magnesium, potassium and sodium are present at 3.7%, 2.3% and 1.6%, respectively. Remaining constituents are less than 1%.

Table 9.2: Tailings composition

	Content of elements in products (%)		
Description	Raw ore	Concentrate	Flotation tailings
Tungsten trioxide	0.180	66.318	0.033
Bismuth	0.005	0.010	0.005
Molybdenum	0.005	0.030	0.005
Copper	0.020	0.080	0.020
Lead	0.015	0.000	0.015
Zinc	0.020	0.000	0.020
Arsenic	0.030	0.040	0.030
Sulfur	0.770	0.600	0.770
Total iron	4.690	0.600	4.699
Manganese	0.220	0.500	0.219
Calcium oxide	5.230	0.000	5.242
Titanium dioxide	0.650	0.100	0.651
Magnesium oxide	3.740	0.200	3.748
Potassium oxide	2.300	1.100	2.303
Sodium oxide	1.660	0.800	1.662
Silica	61.300	6.500	61.422
Alumina	12.550	18.825	12.536
Tin	0.002	0.010	0.002
Phosphorus pentoxide	0.170	0.040	0.170
Calcium fluoride	0.630	0.100	0.631
LOI (loss on ignition)	4.420	2.500	4.424
Other	1.383	1.647	0.927

Source: ANTAL

9.5 Volumetric assessment

SRK conducted a volumetric model assessment to estimate the storage capacity of the TSF. The model was based on a topographical survey of the TSF construction site that was provided by Jiaxin and undertaken using AutoCAD Civil 3D software. The main parameters of the TSF used in the 3D modeling were taken from the Design Report prepared by ANTAL (2020) (Table 9.3).

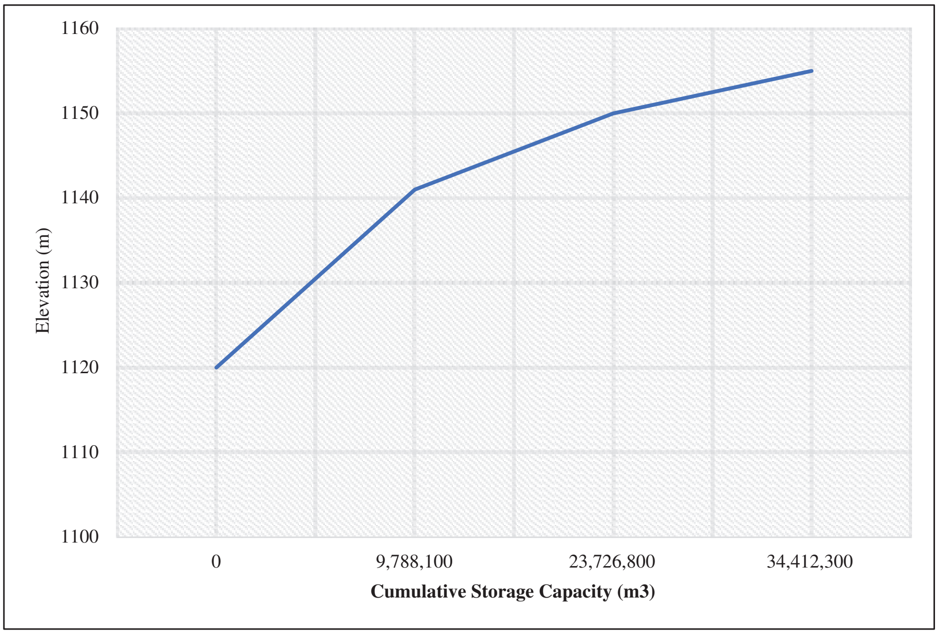
Table 9.3: TSF main design parameters

Criteria	Value
Raise method	Downstream
Upstream slope	1V:2H
Downstream slope	1V:2.5H
Free board	2 m
Dam crest width	6 m
Dam crest elevation	Phase 1: 1,143 m Phase 2: 1,152 m Phase 3: 1,157 m

Source: ANTAL

According to the volumetric assessment result, the Phase 1 TSF with a designed dam crest elevation of 1,143 m, has storage capacity of 9.8 Mm^3 with 2 m freeboard. In Phase 2, the dam will be raised to 1,152 m, providing a cumulative storage capacity of 23.7 Mm^3 with the same freeboard parameter. The final dam, with a crest elevation of 1,157 m creates a total storage capacity of 34.4 Mm^3 (Figure 9.3). The results from the volumetric assessment are consistent with the storage volume estimated by ANTAL (2020).

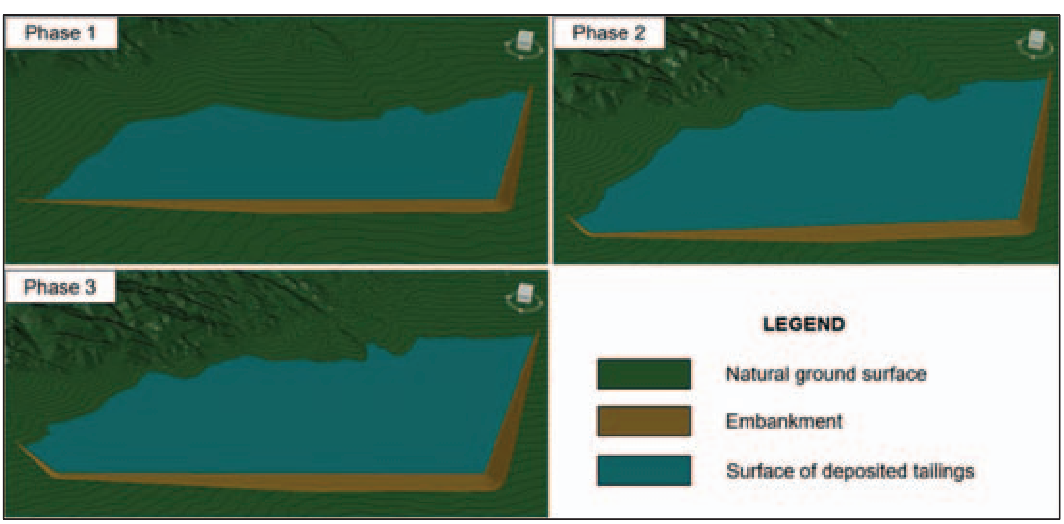
Figure 9.3: TSF storage capacity curve



Source: SRK

Figure 9.4 shows the output from the volumetric model and the development of the TSF during the three phases: Phase 1 with a deposited tailings level of 1,141 m, Phase 2 with a deposited tailings level of 1,150 m and the final Phase 3 showing a tailings deposition level of 1,155 m.

Figure 9.4: TSF volumetric models for Phase1, Phase 2 and Phase 3



Source: SRK

9.6 TSF monitoring

The TSF will be equipped with automated and manual monitoring facilities. The proposed automated monitoring includes dam surface displacement monitoring, seepage line monitoring, water level monitoring in the storage area, rainfall monitoring, and video surveillance of the storage area. Manual monitoring will involve monitoring dam surface displacement, seepage lines, and water levels in the storage area.

9.7 TSF foundations

The TSF footprint is underlain by sandy loam and gravelly soils, ranging from 0.1 m to 33.6 m in the vicinity of the embankment and 1.4 m to 24.9 m in the TSF basin. These soils were removed and stockpiled in an area to the east of the TSF. Sandstone underlies these soils at depths ranging from 1.7 m to 24.5 m.

9.8 Conclusion and recommendations

- The available storage volume of Phases 1, 2 and 3 will meet the tailings volume requirement as confirmed by the volumetric assessment.

- The design does not incorporate tailings underdrainage, resulting in the retention of a portion of the return water and a high phreatic surface, causing a slower consolidation rate for the tailings. However, the conservative design with a dry density of 1.35 t/m^3 minimises the negative impact on the storage volume of the TSF.

- The Project is water negative which requires obtaining fresh water from Charyn River 查仁河, thus highlighting the importance of recovering additional return water. It is necessary to confirm the negative volume of the water balance to ensure an adequate supply for process water.

- The planned extraction of fresh water from the Charyn River 查仁河 presents a risk to the Project if this resource becomes limited or the pipeline becomes damaged.

- The TSF design includes an embankment spillway to mitigate the risk of overtopping. The floating barge pump also has the design capacity to remove water from the basin at a rate that will mitigate the risk of overtopping.

- The lining may be compromised and seepage emanating from the basin may saturate the foundation soils, thereby reducing their strength. However, the foundation soils are sandy and gravelly, making it unlikely that there will be pore pressure build-up and a corresponding reduction in strength.

- SRK recommends installing a well point system in the TSF to recover more process water and improve consolidation.

- Additional on-site QAQC checks are required to ensure the construction process aligns with the design intent.

10 TUNGSTEN MARKET AND MACROECONOMICS

10.1 Introduction

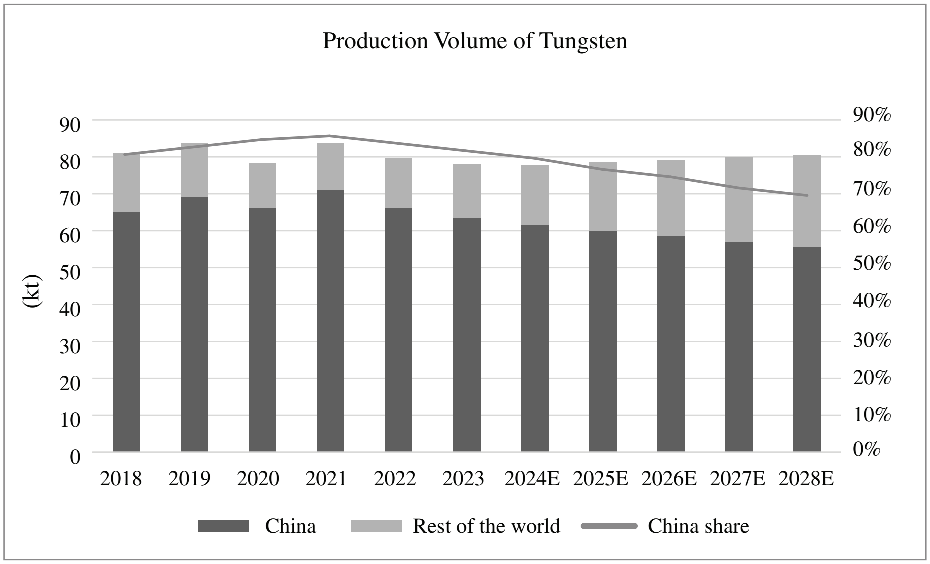
The Company engaged Frost & Sullivan (F&S), an independent market research and consulting company, to conduct a market study on the tungsten markets in China, Kazakhstan and globally and to provide a forecast on prices for tungsten concentrates and APT (F&S, 2025). The market study relies on various sources including the China Tungsten Industry Association, the Bureau of the National Statistics of the Republic of Kazakhstan, United States Geological Survey, the Company itself and F&S's own analysis. The following tungsten market summary is primarily based on the market study, which considers these sources as reliable, as well as other publicly available information and additional sources subscribed to by SRK, such as S&P Global Intelligence and the National Bank of Kazakhstan.

10.2 Demand

Global demand has risen steadily between 2018 and 2023, with a compound annual growth rate (CAGR) of 3.0% while the demand from China has increased at a slower rate of 2.2% CAGR. China accounted for 45% of demand in 2018, which decreased to 43% in 2023. According to F&S, the global demand for tungsten will continue to rise from 2023 to 2028 with a CAGR of 4.0% globally or 3.4% from China. Cemented carbides are the primary use for tungsten, followed by steel and alloys, mill products and chemicals and others. F&S forecasts the global tungsten demand to reach 151.1 kt by 2028 (Figure 10.1).

The automotive industry represents the largest end-use segment for tungsten, followed by industrial applications, transport, mining, construction and consumer goods. F&S considers that the growing market for new energy vehicles (NEVs) is a key driver for increased tungsten material demand. China is expected to have a higher rate of consumption of tungsten due to its higher NEV penetration rate compared to other countries. Further growth in NEVs and photovoltaic (PV) stations in China, and globally, has resulted in a significant increase in tungsten consumption.

Figure 10.1: Global tungsten demand



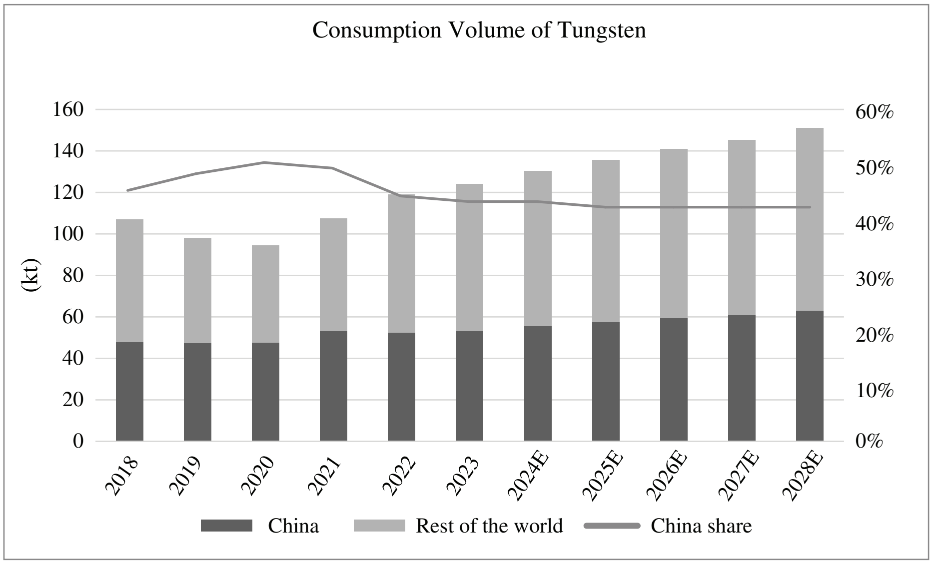
Source: F&S

10.3 Supply

The world tungsten production has remained relatively stable between 2018 and 2023, except for a significant fall in production in 2020 due to the onset of the COVID-19 pandemic. During this period, the annual production ranged from 81,100 t to 78,000 t of tungsten concentrate, with China dominating the market, representing 80~85% of global production. Most of the Chinese tungsten mines are located in the Jiangxi, Hunan and Henan Provinces. Vietnam is the second largest tungsten producer (Masan Group's Nui Phao tungsten mine) followed by Russia and Bolivia. In Kazakhstan, there are currently no operating tungsten mines, but there a few tungsten projects are at the feasibility stage (e.g. the North Katapal Severniykatpar tungsten-molybdenum-bismuth-copper project, located in central Kazakhstan) or under construction (this Project).

According to F&S forecasts, global production is expected to rise steadily from 2023 to 2028 at a CAGR of 0.6%. China's production rate will grow slower than the rest of the world at a CAGR of -2.7%. China's dominance of tungsten production is therefore projected to decrease slightly from 81% to 69% between 2023 and 2028 (Figure 10.2). To conserve mineral resources, the Ministry of Natural Resources of China implements an annual quota system for tungsten mining. This quota determines the total amount of tungsten mining allowed and the quota is then distributed among different tungsten mining enterprises. This approach helps maintain a stable output of tungsten concentrate. According to the Chinese Ministry of Natural Resources, China has set its 2023 mining quota for tungsten concentrate at 111,000 t. China also does not allow the export of tungsten concentrate and imposes a 13% value-added tax (VAT) on imports.

Figure 10.2: Global tungsten concentrate supply



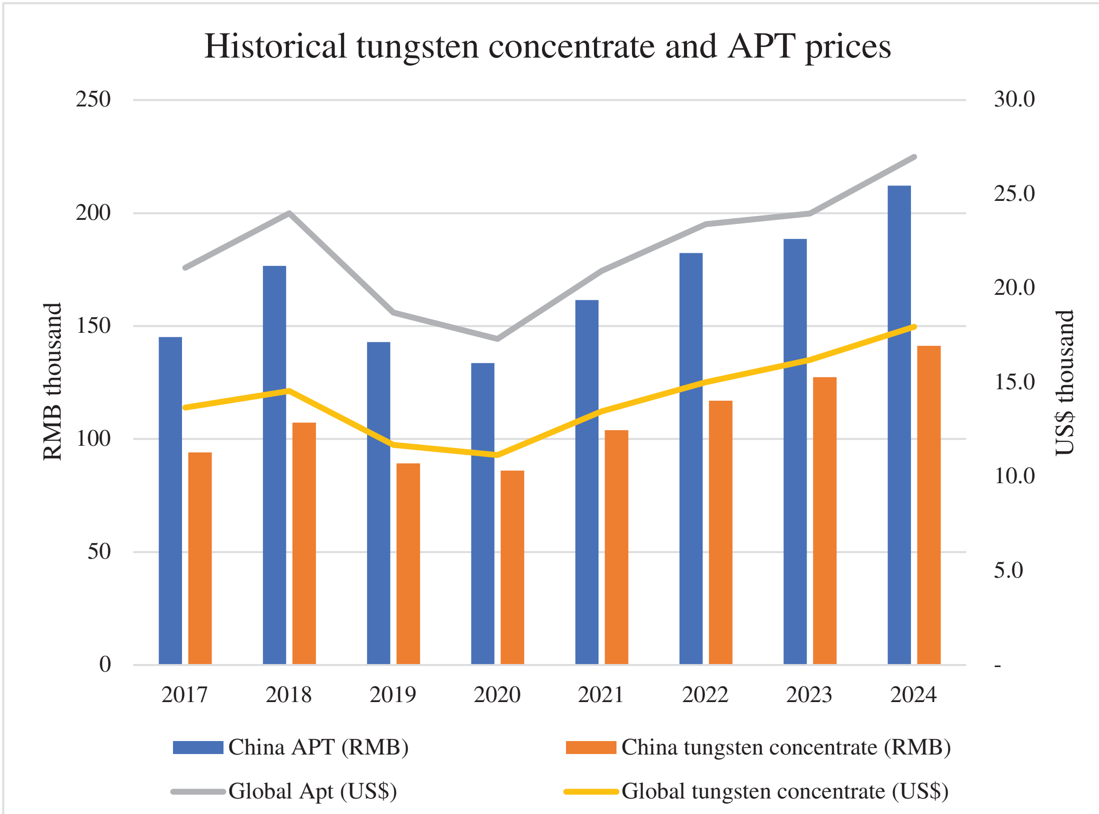
Source: F&S

10.4 Historical prices

Mineral commodity markets typically display cyclical behavior, characterised by significant price fluctuations over time. However, these fluctuations are often observed within a broader, long-term trend of declining real prices. This trend is driven by technological advancements that continually reduce production costs at mines. In the tungsten market, tungsten concentrate prices are predominantly based on a discounted APT price and thus follow similar trends to prices for APT between 2017 and 2024.

Figure 10.3 shows the historical tungsten concentrate and APT prices. The global tungsten concentrate price decreased in nominal terms from 2017 (US$13,700/t) to 2020 (US$11,200/t) and increased steadily to 2024 (US$18,000/t). In China, a similar trend was present in which the tungsten concentrate price in nominal terms (VAT inclusive) bottomed in 2020 (RMB82,000/t) and reached RMB141,200/t in 2024. According to F&S, the increase in prices since 2020 is due to the shortage of global supply.

Figure 10.3: Historical global and China tungsten concentrate and APT prices



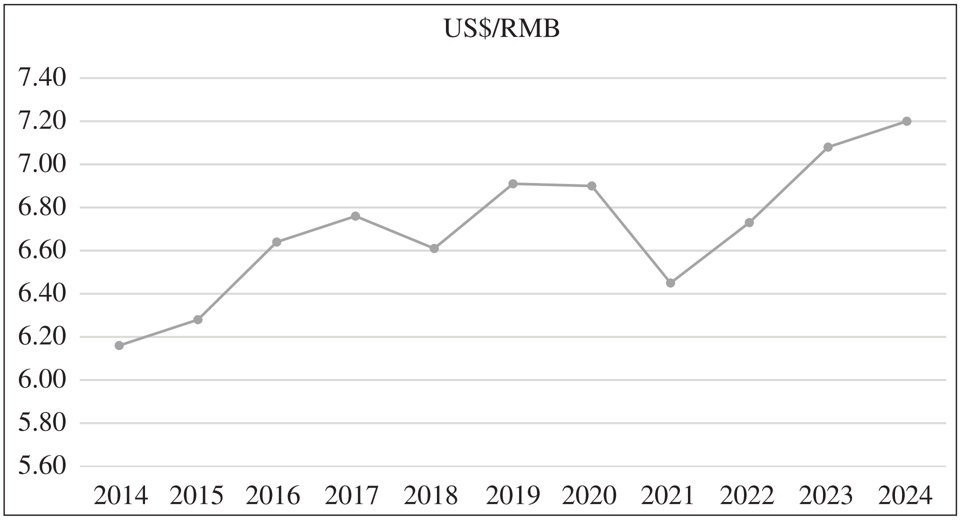
Source: F&S

10.5 Exchange rates

The Project is located in Kazakhstan and a significant portion of the consumables and reagents are sourced from China. The expenditure on wages for Chinese employees is greater than for Kazakh employees. Moreover, the planned sales show all tungsten concentrate being sold to the Chinese market. Consequently, exchange rate fluctuations between the Chinese Renminbi (RMB), Kazakhstan Tengi (KZT) and United States dollars (US$) will have an impact on the economics of the Project.

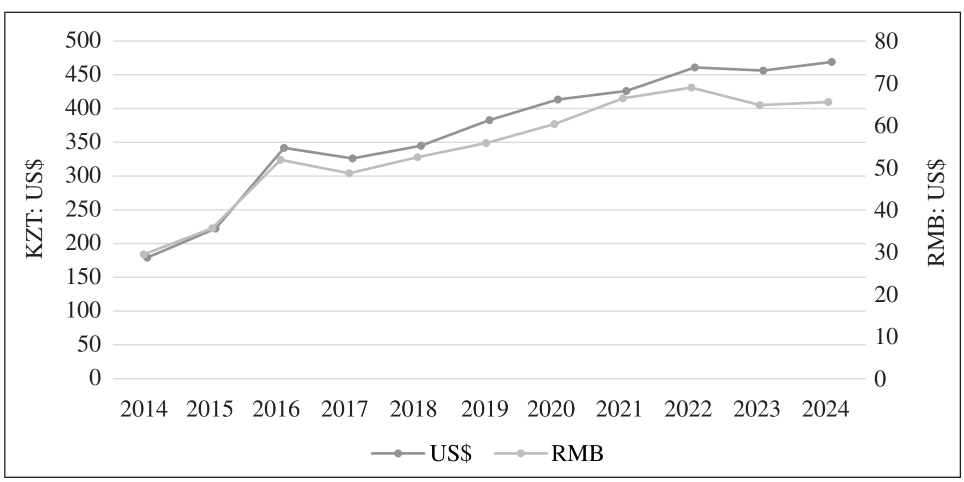
Figure 10.4 presents the exchange rates between the KZT, US$ and RMB. Over the last 10 years there has been a steady depreciation of the KZT against the US$ and RMB. The exchange rate between the KZT and the US$ has increased from 150 to 520. Similarly, the exchange rate between the KZT and the RMB has risen from 4 to 71 (Figure 10.4). The exchange rate between the RMB and the US$ has increased from 6.15 to 7.28 during the same period (Figure 10.5).

Figure 10.4: Historical exchange rates against the KZT between 2014 and 2024



Source: National Bank of Kazakhstan

Figure 10.5: Historical US$/RMB exchange rate between 2014 and 2024



Source: Bloomberg (accessed on 31 December 2024)

10.6 Forecast prices

F&S forecasts that the prices for APT and tungsten concentrates in nominal terms will exhibit a significant uptrend from CY2025 to CY2030, considering the recovery of the tungsten downstream market and the easing of the impacts from the COVID-19 pandemic. The global tungsten concentrate price in nominal terms is expected to increase from US$20,200/t in CY2025 to US$26,200/t in CY2030. Similarly, the tungsten concentrate price in China (VAT inclusive) in nominal terms is projected to increase from RMB/t 163,000 in CY2025 to RMB/t 219,000 in CY2030, representing a 34% increase.

F&S has not provided the prices in real terms nor a long-term price (LTP) forecast. SRK has used F&S forecast price index and inflation forecast to derive the forecast prices. SRK has assumed the price will remain steady after CY2030 and has used the CY2030 forecast price as the LTP. SRK notes that the spot price as of 30 June 2025 is RMB/t 172,000 (VAT inclusive) or RMB152,000/t (VAT exclusive). Therefore, SRK has elected to use the spot price for H2 2025 and the forecast prices by F&S for the economic viability analysis.

The commodity price assumptions in Table 10.1 were used for reporting the Mineral Resource and Ore Reserve Statements.

Table 10.1: Forecast commodity price assumptions

	2025E	2026E	2027E	2028E	2029E	2030E
Tungsten concentrate — China (RMB thousand) nominal VAT inclusive	163	180	190	200	210	219
Tungsten concentrate — China (RMB thousand) nominal VAT exclusive	144	159	168	177	186	194
Tungsten concentrate — China (RMB thousand) real VAT inclusive	163	179	188	196	203	210
Tungsten concentrate — China (RMB thousand) real VAT exclusive	144	159	166	174	180	186
Inflation	0.50%	0.66%	0.92%	1.11%	1.10%	1.10%
Price Index	1.000	1.005	1.012	1.021	1.032	1.044
VAT	13%	13%	13%	13%	13%	13%

Source: Price and inflation (F&S)

10.7 Customers and Sales

As of 30 June 2025, a total of 1,033.6 t of scheelite concentrate has been sold. SRK has reviewed sales agreements with Jiangxi Tungsten, a company based in China, which fall into two categories. The first type of agreement, signed on 8 December 2024, requires Jiaxin to sell 200 t of scheelite concentrate per month from April to December 2025, totaling 1,800 t. Under this agreement, Jiaxin is responsible for shipping the concentrate to the designated warehouse and the price is determined based on concentrate grades and the prices posted on the 5th and 20th day of each month on the website www.comelan.com. The second type of agreement, signed between May and June 2025, specifies the same point of delivery as the first type, but the price is explicitly stated within the agreements.

11 CAPITAL AND OPERATING COSTS

11.1 Capital cost

The capital cost forecast has been prepared based on the Preliminary Design, the contract with the primary contractor, CCECC. Full-scale construction commenced in May 2021. The forecast capital cost has been reconciled with the actual capital cost. The forecast capital cost has been updated recently by the Company's financial team.

The capital cost of the Project has been incurred since 2020. From CY2020 to H1 CY2025, a total of RMB1,712.0 million has been incurred. The budgeted amounts (including contingencies) for H2 CY2025 and CY2026 are RMB315.5 million and RMB309.3 million respectively. The total incurred and forecast capital cost for the initial development of the Project amounts to RMB2,236.3 million (Table 11.1). Upon the completion of initial development by 2026, the Project will have capacity to process 3.3 Mtpa of ore in Phase I and increase this to 4.95 Mtpa in Phase II.

The raising of the TSF is planned for Phase 2 and Phase 3 (Section 9.1) in 2026 and 2034, respectively. The cost associated with this work amounts to RMB232.2 million for Phase 2 and RMB232.2 million for Phase 3, totaling RMB466.0 million. The estimated mine closure cost is RMB16.5 million. The total cost for the initial development, subsequent raising of the TSF and mine closure cost amounts to RMB2,719.3 million.

The major capital cost centres include the TSF, followed by the processing plant system and processing plant equipment. Including contingency, the cost for all three phases of TSF development totals RMB827.7 million. The processing plant system, including the foundation and structure of the processing facilities, the conveyor belt from the primary crushing station to the processing plant complex, and others, totals RMB627.5 million. The procurement and installation of processing plant equipment amount to RMB381.4 million. The ore sorting system has been budgeted at RMB138.3 million. A contingency has been budgeted for the remaining capital cost projection. SRK has reviewed the breakdown of the capital cost forecast and considers that appropriate capital has been allocated to support the remaining initial development, including the ore sorting system and the construction of Phase 2 and Phase 3 of the TSF. The mine closure cost estimate appears to be on the low side. The estimated capital cost is considered reasonable. The capital unit cost over the LOM is estimated to be 40 RMB/t ore or 15,900 RMB/t concentrate.

Table 11.1 Historical and forecast capital cost (RMB million)

Cost Center	Total LOM	2020	2021	2022	2023	2024	H1 2025	H2 2025	2026	2027-2033	2034-2040
Mine stripping	65.7	0.0	0.0	16.7	40.0	4.7	0.0	1.2	3.0	0.0	0.0
Processing Plant System	610.7	1.0	31.0	132.6	274.2	3.8	21.0	45.9	101.3	0.0	0.0
Tailings Storage Facility	774.7	0.0	50.6	34.4	96.6	114.5	0.0	50.4	100.1	121.2	211.7
Processing Equipment	371.0	0.0	16.1	56.4	134.5	135.6	0.0	18.9	16.4	0.0	0.0
Power supply	96.7	0.0	1.6	3.1	40.6	48.6	0.0	2.2	1.7	0.0	0.0
Heating system	43.5	0.0	0.0	0.0	5.0	41.2	0.0	0.6	0.5	0.0	0.0
Telecommunication system	8.8	0.0	0.0	0.0	5.0	3.5	0.0	0.3	0.2	0.0	0.0
Water supply and reticulation system	82.4	0.0	6.0	0.0	17.7	39.0	0.0	17.7	1.8	0.0	0.0
Roads and other ancillary facilities	137.6	0.0	11.7	10.0	20.8	60.2	0.0	37.5	3.0	0.0	0.0
Office, camp and others	35.9	0.0	0.0	0.0	0.0	36.7	0.0	1.4	1.1	0.0	0.0
Ore sorting system	125.8	0.0	0.0	0.0	0.0	0.0	0.0	73.7	52.1	0.0	0.0
Other	235.8	24.2	16.4	17.4	58.7	80.8	0.0	38.3	0.0	0.0	0.0
Mine closure	16.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.9
Contingency	113.9	0.0	0.0	0.0	0.0	0.0	0.0	27.0	28.0	12.1	21.1
Total	2,719.3	25.2	133.3	270.6	693.3	568.5	21.0	315.1	309.3	133.2	249.7

Source: Independent Technical Report

Note: Some totals may not correspond to the sum of the separate figures due to rounding.

11.2 Operating cost

Table 11.2 presents the actual operating cash costs for the period from January to June 2025, which totaled RMB118.4 million. The largest cost components were general and administrative expenses (RMB42.1 million) and mining (RMB40.8 million), followed by processing (RMB34.9 million). Additionally, resource tax accounted for RMB0.7 million.

An operating cost forecast was prepared based on the Preliminary Design, actual costs incurred during the trial production period and updates provided by the Company's financial team. The forecast encompasses all activities, including contract mining, crushing, screening, ore sorting (Phase II), processing, and product transportation. General and administrative expenses, resource tax, and other site-related costs have also been taken into account (Table 11.3).

Table 11.2 Actual operating cost (January-June 2025)

By types	RMB million
Mining	40.8
Processing	
Labor	*3.6*
Consumables	*15.8*
Fuel, Electricity and Water	*15.1*
Maintance and Other Services	*0.3*
Subtotal	*34.9*
General and Administrative	42.1
Sales	0.0
Resource tax	0.7
Total	118.4

By activities	RMB million
Workforce employment	32.3
Consumables	15.8
Fuel, Electricity, water and other services	55.9
On and off-site administration	8.6
Environmental protection and monitoring	0.0
Transportation of workforce	2.5
Product marketing and transport	0.7
Non-income taxes, royalties and other government charges	2.6
Contingency allowances	0.0
Total	118.4

Source: Jiaxin

The key assumptions for the operating cost estimates are based on the current mining contract, contracts with or quotations from consumables providers, contracts with employees, the current government contract for water price, and research on current and projected fuel and electricity prices. The applicable taxes include a resource tax of 7.8% of revenue.

In real terms, the contract mining cash cost is projected to be RMB71.9 million in H2 CY2025 and reach its peak in 2029, amounting to RMB195.9 million. As the total amount of material being moved decreases, the mining cost will gradually reduce. The processing cash cost is estimated to be RMB144.6 million in H2 2025 at a target annual throughput of 1.65 Mt of ore. There will only be a modest increase in the processing cost (RMB311.6 million) in 2027 when the target annual throughput rises to 4.95 Mt due to the installation of the ore sorting system, which effectively reduces the average processing cost (see processing cost breakdown Table 11.3). Starting from 2027, the general and administrative cost is expected to remain steady at RMB96.2 million per year. The sales cost and resource tax will be proportional to the amount of concentrate produced annually. The sales cost includes the hauling of tungsten concentrate from the mine to the Khorgos border crossing and custom clearance fee. Between 2027 and 2039, the forecast sales cost ranges from RMB14.0 million to RMB33.1 million per year, while the resource tax is anticipated to be between RMB25.7 million and RMB35.5 million.

By CY2027, as the Project attains its target production rate of 4.95 Mtpa and the ore sorting system for Phase II development is implemented, the total operating cash cost is projected to be RMB606.1 million. However, the total operating cash unit cost is expected to decrease significantly, from 200 RMB/t ore and 91,000 RMB/t concentrate in H2 2025, to 122 RMB/t ore and 44,400 RMB/t concentrate in 2027.

SRK has reviewed the breakdown of the operating cost forecast and considers it reasonable. Although most of the consumables are sourced from China and Chinese employees represent a portion of the workforce with their cost and wages denominated in RMB, the remaining operating costs are denominated in KZT. SRK notes that there is a long-term depreciation of KZT against RMB (Figure 10-4), however appropriate management of the exchange rate fluctuation risk is required. In addition, the risk of inflation in Kazakhstan impacting operating costs has to be managed properly.

Table 11.3 Operating cost forecast (real)

Production Profile	Unit	Total LoM	H2 2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Mining																	
Ore	Mt	68.4	2.5	5.2	8.1	4.4	2.1	3.4	4.7	5.1	5.0	5.0	5.1	5.4	5.4	5.4	1.7
Waste	Mt	104.9	4.5	10.2	4.8	12.9	16.3	14.7	10.1	10.8	4.8	4.6	3.4	2.8	2.0	2.7	0.2
Total materials moved	Mt	173.3	7.0	15.3	12.9	17.4	18.4	18.0	14.9	16.0	9.8	9.6	8.6	8.1	7.3	8.1	1.9
Strip Ratio		1.53	1.81	1.96	0.60	2.91	7.86	4.36	2.13	2.12	0.94	0.93	0.66	0.52	0.36	0.51	0.13
Grade	WO_3%	0.206	0.164	0.196	0.190	0.178	0.174	0.203	0.180	0.238	0.213	0.203	0.205	0.231	0.240	0.226	0.195
High-grade Ore	Mt	53.2	1.7	3.8	5.5	3.3	1.5	2.6	3.4	4.2	4.0	4.0	4.0	4.4	4.9	4.8	1.2
Grade	WO_3%	0.0	0.191	0.228	0.228	0.201	0.201	0.229	0.207	0.267	0.239	0.227	0.230	0.257	0.252	0.239	0.226
Medium-Grade Ore	Mt	7.8	0.4	0.8	1.2	0.6	0.3	0.3	0.7	0.5	0.6	0.6	0.6	0.5	0.3	0.4	0.2
Grade	WO_3%	0.0	0.123	0.124	0.124	0.124	0.124	0.125	0.124	0.124	0.124	0.123	0.124	0.124	0.125	0.125	0.124
Low-grade Ore	Mt	7.5	0.4	0.7	1.4	0.6	0.4	0.4	0.7	0.5	0.4	0.5	0.5	0.5	0.2	0.2	0.2
Grade	WO_3%	0.0	0.099	0.099	0.099	0.098	0.100	0.098	0.101	0.100	0.100	0.099	0.099	0.099	0.097	0.103	0.099
Processing																	
Feed ore	Mt	68.4	1.65	3.80	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	4.95	3.58
Feed ore grade	WO_3%	0.0	0.191	0.227	0.228	0.187	0.140	0.169	0.176	0.243	0.215	0.204	0.209	0.242	0.251	0.235	0.147
Recovery	%	various[1]	75.00	83.00/ 78.85	78.85	78.85	78.85	78.85	78.85	78.85	78.85	78.85	78.85	78.85	78.85	78.85	78.85
Concentrate at 65% WO_3	t	171,003	3,638	10,900	13,665	11,228	8,382	10,172	10,596	14,578	12,936	12,276	12,549	14,527	15,065	14,119	6,371
Operating Cash Cost																	
Mining	RMB million	1,800.7	71.9	158.2	132.7	180.3	195.9	189.1	153.5	164.6	101.0	99.4	88.2	83.8	75.7	83.2	23.2
Processing																	
Labor	*RMB million*	*696.9*	*24.4*	*52.8*	*48.7*	*48.7*	*48.7*	*48.7*	*48.7*	*48.7*	*48.7*	*48.7*	*48.7*	*48.7*	*48.7*	*48.7*	*35.2*
Consumables	*RMB million*	*2,389.1*	*82.1*	*177.5*	*167.4*	*167.4*	*167.4*	*167.4*	*167.4*	*167.4*	*167.4*	*167.4*	*167.4*	*167.4*	*167.4*	*167.4*	*121.0*
Fuel, Electricity and Water	*RMB million*	*918.6*	*30.2*	*65.4*	*64.7*	*64.7*	*64.7*	*64.7*	*64.7*	*64.7*	*64.7*	*64.7*	*64.7*	*64.7*	*64.7*	*64.7*	*46.8*
Maintenance and Other Services	*RMB million*	*416.9*	*7.8*	*16.9*	*30.8*	*30.8*	*30.8*	*30.8*	*30.8*	*30.8*	*30.8*	*30.8*	*30.8*	*30.8*	*30.8*	*30.8*	*22.3*
Subtotal	RMB million	4,421.5	144.6	312.5	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6	311.6	225.2
General and Administrative	RMB million	1,413.6	94.7	94.7	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	96.2	69.6
Sales	RMB million	376.2	8.0	24.0	30.1	24.7	18.4	22.4	23.3	32.1	28.5	27.0	27.6	32.0	33.1	31.1	14.0
Resource tax	RMB million	490.9	11.9	27.3	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	25.7
Total	RMB million	8,502.9	331.0	616.6	606.1	648.3	657.6	654.8	620.2	640.0	572.8	569.8	559.2	559.1	552.2	557.6	357.7

Production Profile	Unit	Total LoM	H2 2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Operating Cash Unit Cost																	
Mining	RMB/t ore	26.3	29.0	30.5	16.5	40.6	94.2	56.3	32.4	32.1	20.0	19.9	17.1	15.6	14.0	15.5	14.0
Processing																	
Labor	*RMB/t processed*	*10.2*	*14.8*	*13.9*	*9.8*	*9.8*	*9.8*	*9.8*	*9.8*	*9.8*	*9.8*	*9.8*	*9.8*	*9.8*	*9.8*	*9.8*	*9.8*
Consumables	*RMB/t processed*	*34.9*	*49.6*	*46.7*	*33.8*	*33.8*	*33.8*	*33.8*	*33.8*	*33.8*	*33.8*	*33.8*	*33.8*	*33.8*	*33.8*	*33.8*	*33.8*
Fuel, Electricity and Water	*RMB/t processed*	*13.4*	*18.3*	*17.2*	*13.1*	*13.1*	*13.1*	*13.1*	*13.1*	*13.1*	*13.1*	*13.1*	*13.1*	*13.1*	*13.1*	*13.1*	*13.1*
Maintenance and Other Services	*RMB/t processed*	*6.1*	*4.7*	*4.4*	*6.2*	*6.2*	*6.2*	*6.2*	*6.2*	*6.2*	*6.2*	*6.2*	*6.2*	*6.2*	*6.2*	*6.2*	*6.2*
Subtotal	RMB/t processed	64.6	87.4	82.2	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9
General and Administrative	RMB/t processed	20.7	57.2	24.9	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
Sales	RMB/t processed	5.5	4.8	6.3	6.1	5.0	3.7	4.5	4.7	6.5	5.7	5.5	5.6	6.5	6.7	6.3	3.9
Resource tax	RMB/t processed	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
Total	RMB/t processed	124	200	162	122	131	133	132	125	129	116	115	113	113	112	113	100
	RMB/t concentrate	49,800	91,000	56,600	44,400	57,800	78,500	64,400	58,600	43,900	44,300	46,500	44,600	38,500	36,700	39,500	56,200
Operation Unit Cost																	
Total	RMB/t processed	159	235	194	151	160	161	161	154	158	144	151	149	149	148	149	179
	RMB/t concentrate	63,500	106,900	67,600	54,800	70,400	95,400	78,300	71,900	53,600	55,200	61,100	58,900	50,900	48,600	52,200	100,700

Source: Independent Technical Report

Notes:

1 Target recovery rates: H2 2025:75%, 2026:83% and 78.85% (with the ore sorting system).

2 The cost for equipment replacement and refurbishment has been allocated to the processing cost, amounting to RMB3.29 million per year.

3 General and Administrative costs include a payment of approximately RMB1.0 million per year to the Kazakhstani Government for the mine rehabilitation fee.

4 Some totals may not correspond to the sum of the separate figures due to rounding.

5 High-grade ore is defined at a cut-off grade of >0.14% WO_3; Medium-grade ore is defined at a cut-off grade between 0.12%-0.14% WO_3 and low-grade ore is defined at a cut-off grade of 0.06% WO_3.

11.3 Economic viability assessment

SRK has prepared a technical economic model (TEM) to evaluate the economic viability of the Project. The TEM is based on the capital and operating costs, the mining schedule (Table 6.8) and the processing plant production schedule (Table 7.19). The tungsten concentrate is assumed to be sold on the Chinese side of the Khorgos border crossing at the forecast sales prices (Table 10.1). The assessment has been carried out in RMB, with constant exchange rates of US$/RMB at 7.08 and RMB/KZT of 64.45. The assessment is in nominal terms, assuming a 2% annual inflation for both RMB and KZT denominated costs.

The TEM also includes a resource tax at a rate of 7.8% of revenue. The value-added tax (VAT) related to sales and operating cost has not been modeled, as it assumes that the VAT is paid and recovered within the same year. However, the VAT related to capital cost has been determined and assumed to be rebated within the same year. The corporate tax rate is 20%.

A discount cash flow model has been prepared on a post-tax basis. This assessment does not take into account any finance costs or company debt. Net present values (NPV) are determined at various discount rates. It is important to note that the NPVs only represent a measure of the Project's economic viability and do not represent the fair market values or profitability of the Project. The Project generates positive NPVs (post-tax) at a range of discount rates (Table 11.4), indicating its economic viability and justifying the declaration of Ore Reserves as presented in Table 6.11.

At the forecast production rates, it will take approximately 15 years to deplete the Ore Reserve. The breakeven analysis shows that the post-tax NPV at 10% discount rate will become zero when the average tungsten concentrate price is approximately RMB64,000/t. The payback period, which is the amount of time required to recoup the initial development capital, is approximately 3.1 years.

Table 11.4 Post-tax NPVs at various discount rates (nominal, RMB million)

8%	10%	12%	14%
10,725	9,502	8,476	7,611

Source: SRK

A post-tax sensitivity analysis at 10% discount rate (nominal) has also been undertaken against the key parameters (Table 11.5 & Figure 11.1). The analysis shows that:

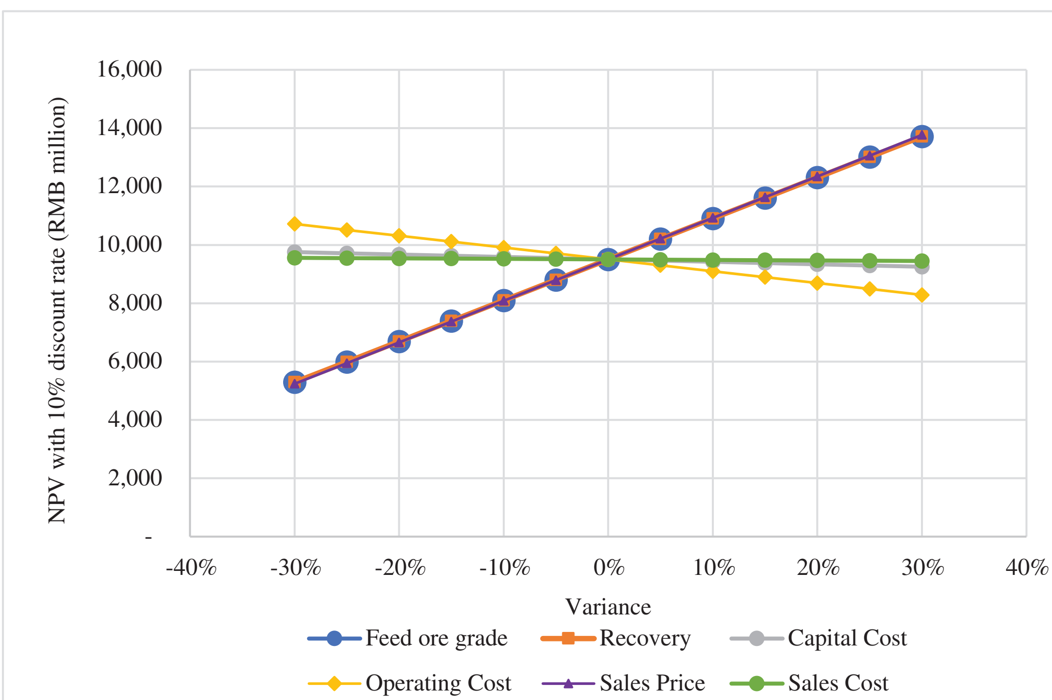
- 1% change in feed ore grade will result in 1.48% increase in NPV.
- 1% change in processing recovery will result in 1.48% increase in NPV.
- 1% change in capital cost will result in 0.09% decrease in NPV.
- 1% change in operating cost will result in 0.43% decrease in NPV.
- 1% change in sales price will result in 1.50% increase in NPV.
- 1% change in sales cost, including the hauling of tungsten concentrate to the Khorgos border crossing and custom clearance fee will result in 0.02% decrease in NPV.

Table 11.5 Post-tax NPV sensitivity analysis at 10% discount rate (nominal, RMB million)

Variance	Feed ore grade	Recovery	Capital Cost	Operating Cost	Sales Price	Sales Cost
30%	13,720	13,720	9,243	8,286	13,775	9,448
25%	13,017	13,017	9,286	8,488	13,063	9,457
20%	12,314	12,314	9,330	8,691	12,350	9,466
15%	11,611	11,611	9,373	8,894	11,638	9,475
10%	10,908	10,908	9,416	9,097	10,926	9,484
5%	10,205	10,205	9,459	9,299	10,214	9,493
0%	9,502	9,502	9,502	9,502	9,502	9,502
-5%	8,799	8,799	9,545	9,705	8,790	9,511
-10%	8,096	8,096	9,588	9,907	8,078	9,520
-15%	7,393	7,393	9,631	10,110	7,366	9,529
-20%	6,690	6,690	9,674	10,313	6,654	9,538
-25%	5,987	5,987	9,718	10,516	5,941	9,547
-30%	5,284	5,284	9,761	10,718	5,229	9,556

Source: SRK

Figure 11.1 Post-tax NPV sensitivity analysis at 10% discount rate (nominal, RMB million)



Source: SRK

12 ENVIRONMENTAL AND SOCIAL

12.1 Introduction

This section provides information on the Project context, the legal framework in Kazakhstan, permitting processes, and risk assessment. It aims to help the reader understand the environmental and social setting of the Project area and the key modifying factors that could impact the estimation of Mineral Resources and/or Ore Reserves.

12.2 Legal and regulatory framework

SRK has not reviewed the rights of the Company to mine from a legal perspective. Consequently, SRK has relied on advice from the Company to the effect that the Company will be entitled to mine all material reported here, and that all necessary statutory mining authorisations and permits are in place. SRK's review has rather been restricted to confirming the stated Mineral Resources and Ore Reserves in this Report are within the licence boundaries and also reviewing the technical commitments attached to these licences. Notwithstanding this, this section of the Report includes a summary of the mining law in Kazakhstan as it impacts the Company's assets.

12.2.1 Subsoil law and subsoil code

According to the Constitution of the Republic of Kazakhstan (1995, as amended), natural resources, including minerals, belong to the people of Kazakhstan. Rights to use solid minerals are referred to as 'subsoil use rights' and are granted in the form of exploration or mining licences under the Subsoil and Subsoil Use Code (the 'Subsoil Code'). This Code was adopted in December 2017 and came into effect in June 2018. It is noted that 'subsoil use' is a term in the legislation used to refer to the exploration and mining operations; similarly, 'subsoil user' is a person or entity that possesses the subsoil use rights.

Before the approval of the Subsoil Code, subsoil use rights to use hard minerals were granted under contracts for the right of exploration, mining, or combined exploration and mining (subsoil use contracts), as in the case of this current Project. Since 29 June 2018, when the Subsoil Use Code came into effect, subsoil use rights have been granted under the subsoil use licences (subsoil licences) regime, as exploration or mining ones. These licences are issued by the MIC. Mining and exploration contracts obtained before 29 June 2018 remain in force.

The Subsoil Code requires compliance with taxation, environmental and industrial safety legislation. Subsoil use rights include licences which envisage payment of special taxes and other obligatory payments by subsoil users. Compliance with environmental legislation is required from the earliest stages of planning a mining project, including project conceptualization and design. The Subsoil Code also covers responsible mining compliance and enforcement. Subsoil users in Kazakhstan are subject to extensive environmental protection regulations. The Ministry of Ecology and Natural Resources of the Republic of Kazakhstan (MENR) is the principal state authority for environmental protection. Among other things, it issues environmental permits and licences and establishes limits for environmental emissions. Environmental approvals and reporting are also required under the terms of the *Environmental Code of the Republic of Kazakhstan 2021*.

Mining companies in Kazakhstan are considered subsoil users after they have acquired relevant licences (i.e., subsoil use rights). According to the Article 76 of the Subsoil Code, all subsoil users must regularly report on their operations; this includes reporting on the Extractive Industries Transparency Initiative (EITI). Articles 195 and 215 describe the subsoil users' reporting requirements for exploration and mining operations, respectively. Information on implementation of terms and conditions prescribed by mining and/or exploration contracts and licences, as well as data on procurement, employment, training, and investment in the socio-economic development of the region where deposit sites are not considered confidential.

This information is normally disclosed in:

- the regular EITI reports
- the official website of the Unified State System of Subsoil Use ('EGSU' in national terms; **https://egsu.energo.gov.kz**), an integrated information system of the regulator
- the annual report on subsoil use and terms and conditions of subsoil use (called 'LKU reports' in national terms).

Statutory accounting records are maintained in accordance with the Law on Accounting and Financial Reporting, under which most companies should prepare financial statements under International Financial Reporting Standards (IFRS).

12.2.2 Land tenure legislation

The subsoil user or mining licence holder does not automatically obtain the right to the surface land plot above the deposit. Surface rights are granted by the city or district council (Akimat) or leased from the landowner. The surface land holder must negotiate the terms of land leasing and register its rights for the land plot separately. The registration procedure depends on the land plot category (forest, land or water resources, settlements, etc.). Surface rights to the land plots are provided to the subsoil use licence holder on a temporary basis to enable access to the minerals. However, it does not prevent the mining licence holder from purchasing the land and becoming the landowner.

The Land Code of the Republic of Kazakhstan (2003, as amended) enables land to be given designated uses. The Land Code requires owners/users of land, whether state or privately owned, not to harm public health or the environment, not to pollute the land or cause deterioration in soil fertility, to conserve topsoil, and to rehabilitate disturbed land. The Land Code allows for state appropriation of land for 'public needs' (which may include mineral exploration or exploitation) or if the land is not being used as per its designated land use. It also includes the legal procedure for changing the land use category. Managing land is the responsibility of the Committee for Land Management of the MENR.

12.3 Taxation

In Kazakhstan, the main taxes paid by mining companies (subsoil users) are:

- Corporate Income Tax: Payable by all legal entities and applied at a rate of 20% to taxable income.
- Rents: This represents the fee for the use of land plots where exploration and mining activities are taking place. The rent payments are payable on a quarterly basis.
- Liquidation Funds: These are obtained from the procurement of a subsoil use contract or licence and are not considered income deductions, or accumulated in accordance with a closure plan.
- Mineral Extraction Tax (MET): Payable on the extracted volumes of all minerals including crude oil, gas condensate, natural gas, metals and other minerals and ground water. It is due for payment once the ore is extracted and deducted from the annually reported 'state reserve'. The MET replaced the royalty that applied to subsoil users under the previous Tax Code. The MET for minerals varies depending on the type of mineral.

12.3.1 Environmental and social obligations

As noted above, compliance with environmental legislation is required from the earliest stages of planning a mining project, including project conceptualization and design. Responsible mining is covered in Articles 52 to 58 of the Subsoil Code and compliance and enforcement are covered in Articles 66 to 68 of the Subsoil Code.

The Subsoil Code (Article 28) also includes provisions that promote local employment and procurement and investment in local training and research. Articles 212 and 213 of the Subsoil Code provide further specifications relevant to training, research and local procurement.

Exploration and mining licences generally contain project-specific conditions regarding environmental and social management. These conditions are mandatory, and non-compliance is a ground for suspension of operation and withdrawal of a licence.

12.3.2 *Closure obligations*

The Subsoil Code presents closure requirements for mining operations including exploration. The legal and colloquial term for closure in Kazakhstan is 'liquidation.' These two terms ('closure' and 'liquidation') are used interchangeably in this section.

The Subsoil Code requires the applicant for an exploitation (mining) licence to:

- Provide a mine closure plan as part of its application for a mining licence
- Undertake geochemistry testwork to determine acid rock drainage and metal leaching potential and incorporate the findings into the closure plan
- Include climate change projections in the closure plan
- Include a cost estimate in the mine closure plan to cover the rehabilitation of disturbed areas and decommissioning of the mine and any associated processing and waste facilities
- Provide financial assurance for the full cost of mine closure by means of a bank deposit, a corporate guarantee or insurance (the insurance is governed by the civil legislation of the Republic of Kazakhstan) in accordance with the closure plan
- Periodically review and update the closure cost estimate (at least once in 3 years or whenever a mine plan is updated)

According to the legislation, the closure plan is an integrated part of the mining operations and linked to the mine plan. Four years prior to the end of the mine life, the mine operator develops a final closure plan which must be approved by the regulatory authorities and implemented to appropriately close the mine. The final closure plan is referred to as a 'liquidation project' or 'closure project' in national terms.

The mine operator can use the liquidation funds for its closure activities with the permission of the competent authority at the end of the mine life, and once the final closure plan is approved by the regulators. If there is progressive remediation or reclamation of the site during operations, the expense is deducted from the liquidation fund at the time the closure cost estimate is updated (every 3 years). If the actual closure cost exceeds the value of the fund, the mining operator must cover the remaining costs.

The financial assurance for closure as well as a payment plan for accumulation of the liquidation fund is to be drawn in the closure plan and revised each time the closure plan is updated.

12.3.3 *Permitting*

Environmental impact assessment and approvals

In accordance with Article 48(1) of the *Environmental Code of the Republic of Kazakhstan* (hereinafter — the Code), an environmental assessment means the process of identifying, studying, describing, and evaluating the possible direct and indirect significant impacts of the planned and implemented activities or the document being developed on the environment. Environmental assessment by its types is organized and conducted in accordance with the Code and the Instruction for the organization and conduct of environmental assessment, approved by the Order of the Minister of Ecology and Natural Resources dated July 30, 2021, No. 280 (hereinafter — the Instruction). The environmental assessment, depending on the subject of the assessment, is carried out in the form of a strategic environmental assessment, an environmental impact assessment (EIA or 'OVOS'), a transboundary impact assessment, and an environmental assessment under a simplified procedure. The EIA is mandatory for the types of activities and facilities listed in Sections 1 and 2 of Annex 1 to the Code. Thus, based on the Annex 1, all underground and open pit mining operations over 25 ha are subject to an EIA.

Environmental approval must be obtained before a project can proceed. In Kazakhstan, an EIA must be undertaken for developments that could significantly impact on the environment. The EIA process and approval timeframe have increased significantly compared to the previous legislation and can take more than 3 years. The EIA process was revised under Articles 64-84 of the Environmental Code. As a result, an EIA process must be initiated at the beginning of project planning and start with screening and scoping, followed by impact assessment.

According to the Article 87 of the Environmental Code, all design documentation for the construction and operation of the facilities of I and II environmental hazard must undergo the state environmental review. This includes inter alia mine plans, closure plans, construction and/or reconstruction plans and other. The procedure is called a 'State Ecological Expertise' or 'SEE' in national terms and takes about 3 months on average (Articles 115, 118, 123 of the Environmental Code). SEE is carried out by the Ministry of Ecology. Normally, SEE is implemented as part of the permitting process under the procedures of issue and/or revision of environmental permits. SEE approval takes the form of a record of decision referred to as a 'positive conclusion of the SEE'. Implementation of projects without a positive conclusion of the SEE is prohibited (Article 90). It eventually leads to an environmental permit. Public consultations must be undertaken to inform the SEE and are organized in accordance with the Rules of public hearings conduct provided in the Order of the Minister of Ecology No. 286 dated 3 August 2021.

Environmental permits

Several environmental permits must be obtained before a mine becomes operational. These include environmental permits, water permits, land use permits and permits for disturbance to forestry or other designated natural resources depending on the environmental setting of the operation. In accordance with the 2021 Environmental Code, it is the sole responsibility of the mine operator to obtain the necessary environmental permits, even if there are contractors implementing mine-related works on site (Article 106). Environmental permits in Kazakhstan are compulsory for hazard category I and II operations. They are issued in the form of an environmental impact permit or a complex environmental permit.

According to Article 418 of the Environmental Code, category I operations commissioned before 1 July 2021 and category II operations must have environmental impact permits, which are issued by the regulatory authority and its local (regional) executive body, respectively. Environmental permits obtained by category I and II operations before 1 July 2021 will remain valid until their stipulated expiration. Should a category I operation opt to change its operational process, it must initiate an environmental assessment process and apply for a complex environmental permit.

From 1 January 2025, all category I enterprises commissioned after 1 July 2021 must obtain a complex environmental permit and include Best Available Technology (BAT) in their operation (Article 111 of new Environmental Code). BAT is introduced to minimize the environmental footprint of operations. A subordinate organization of the regulatory authority will develop a guide on the BAT by 1 July 2023 to support this technological transition. In the meantime, these operations will develop their project designs and operate based on developments of the European Integrated Pollution Prevention and Control Bureau with respect to BAT.

12.3.4 Labor protection and occupational health and safety

Labor protection and health and safety in Kazakhstan are regulated by the Constitution, the Labor Code and the Law on Civil Protection. The Ministry of Labor and Social Protection of the Republic of Kazakhstan is responsible for the enforcement of the Labor Code.

The Constitution and the Labor Code guarantee basic workers' rights, including occupational safety and health, the right to organize and the right to strike. Discrimination based on gender, race, dress, nationality, religion, political opinion, public associations, social class or financial status, and physical shortcomings is prohibited. The Labor Code regulates employment and related matters, including dismissal, and safety in the workplace. The Constitution and Labor Code also prohibit forced and child labor. The minimum age for work is 16 years in most work settings and 18 years for hazardous work.

All mining operation facilities are classified as hazardous industrial objects. According to Article 53 of the 2018 Subsoil Code, it is obligatory to meet the rules and regulations for safe work conduct and take measures that prevent and eliminate accidents. To this end, emergency response and preparedness plans are mandatory for all mining operations.

12.4 Mining rights

According to the Subsoil Code (2017), mining rights, also known as 'subsoil rights,' are granted in the form of subsoil use licences for exploration and mining. A mining licence could take up to 2 years to be granted after an application is submitted. An approved mine plan, a closure plan, an environmental permit, and other supporting documents are required for the application.

The mining rights of the Project are covered by the Subsoil Use Contract No. 4608-TPI and three subsequent addenda. The current owner of the Subsoil Use Contract is Zhetisu Volframy LLP (Zhetisu). Zhetisu operates as a joint venture (JV) company with two participants: Aral-Kegan LLP (AK), holding 97% of the participatory interest, and Ever Trillion International Singapore PTE LTD, holding 3% of the participatory interest. AK has two participants: Jiaxin International Resources Investment Limited S.à.r.l., holding 99.99% of the participatory interest, and Mr. Liu Liqiang, holding 0.01% of the participatory interest.

With the previous contract regime, a document that delineates the tenement covered by the contract is appended to the Subsoil Use Contract. The tenement covers an area of 1.16 km^2 and allows exploitation up to a maximum depth of 300 m below surface. The specific boundaries of the mining licence are given in Table 3.1 and shown in Figure 3.7. The Subsoil Use Contract is valid for 25 years, from 2 June 2015 to 2 June 2040. Table 12.1 sets out the environmental and social conditions in the mining contract.

Table 12.1: Key environmental and social conditions in the Subsoil Use Contract and subsequent addenda

Respective clause in Subsoil Use Contract	Terms and conditions
Section 7.2 of the Subsoil Use Contract	Clause 9-10. Local procurement must be encouraged. Clause 11. During mining operations, local recruitment must be preferred, including contractor and subcontractor companies, and constitute not less than 50% for top management, medium management staff, for educated specialists and for the remainder of the qualified workforce. Clause 12. Local employees must be provided with the same conditions as expatriates including subcontractors.

Respective clause in Subsoil Use Contract	Terms and conditions
	Clause 13. Make annual financing of research and development works by Kazakhstani companies in the amount of 1% of the annual investment. Clause 15. Local procurement must be 16% for goods and 85% for work and services. Clause 21. The Company is obliged to protect archaeological, historical, cultural, and protected objects on the contract territory. Clause 34. The Company is obliged to restore land plots and other natural objects disturbed as a result of mining operations to a condition suitable for further use. Clause 38. Subsoil users are to make annual payments for socio-economic and infrastructure development of the regions in the amount of 1% of the mining expenditure to the budget of the local executive authority. Clause 39. To carry out annual financing of research, scientific and technical and (or) development works, provided by Kazakhstan producers of goods, works and services in the amount of not less than 1% of the total annual income.
Section 16 of the Subsoil Use Contract – Liquidation and liquidation fund	Clause 5-6. A liquidation fund shall be created by the subsoil user to finance the liquidation work. Clause 17.5. Liquidation fund payments are made into a deposit account in a local bank in the amount of 1% of annual mining expenditures.
Section 17 of the Subsoil Use Contract – Subsoil and environmental protection.	The Company must follow the legislation on environmental protection when undertaking the operation.

Respective clause in Subsoil Use Contract	Terms and conditions
Section 18 of the Subsoil Use Contract – Health and Safety of the employees and local community	The Company must ensure the implementation of the rules and regulations for the safe conduct of work, as well as measures to prevent and eliminate accidents and occupational diseases. It is prohibited to develop a deposit if there is a danger to human life and health.

Source: Subsoil Use Contract

12.4.1 *EIAs and approvals*

The Company has conducted EIAs for the Project in accordance with local legislation. Table 12.2 shows the number of EIAs developed and their approvals, and the SEE approvals for the main infrastructure items.

Table 12.2: EIAs and approvals

EIAs	Design institution	Date of issuance	SEE Approval No. and date
Open pit	VNIItsvetmet	2020	KZ49VCZ00645044 dated 10 August 2020
Processing plant . .			No. 01-0336/21 dated 25 June 2021
TSF	ANTAL	2020	No. 18-0008/21 dated 25 January 2021

Source: Jiaxin

12.4.2 *Land use approval and surface rights*

According to the Subsoil Use Contract, the competent authority is responsible for ensuring the surface rights are secured for the contract territory. SRK has reviewed the surface rights status for the Project based on the documents provided. The Akimat of Yenbekshikazakh district of Almaty region issued Resolution No. 97 dated 19 February 2020, which states that Zhetisu was granted a package of land plots, covering together of 795.6819 ha for temporary use for a period of 10 years. Resolution No. 279 dated 11 April 2019 granted a land plot of 336.1 ha for temporary use for a period of 22 years. Resolution No. 1103 dated 25 December 2018 granted a land plot of 323.1 ha for temporary use for a period of 22 years. The Almaty Region Land Authority also granted a land plot of 117.9 ha for temporary use of 22 years. According to the resolutions, the Company is obliged to follow water as well as sanitary-hygienic and environmental requirements during land use. Table 12.3 shows the land use approval rights obtained by the Company for the mining activities.

Table 12.3: Land use approval rights and their designation

Cadastral number	Area	Land lease term	Duration
	(ha)		*(year)*
03-044-198-162	795.6819	2020.06.10-2030.02.19	10
03-044-198-163			
03-044-198-175			
03-044-198-176			
03-044-198-165	336.1	2019.05.02-2040.04.11	22
03-044-198-167			
03-044-198-168			
03-044-198-169			
03-044-198-170			
03-044-198-171			
03-044-198-172			
03-044-198-173			
03-044-198-174			
03-044-198-166			
03-044-198-177	323.1	2019.04.10-2041.04.10	22
03-044-198-178			
03-044-198-143	117.9	2019.01.17-2040.06.02	22

Source: Jiaxin

12.4.3 *Environmental and special water use permits*

The Project currently holds the following environmental and water permits:

- Air pollution and waste disposal for the TSF: No. KZ39VCZ00768511 of 22 January 2021 for the period 2021-2026. The approval covers air emissions for the TSF up to 31 December 2026.

- General air pollution and waste disposal: No. KZ49VCZ00973292 of 16 June 2021 for the period 2021-2030; valid until 31 December 2030.

- Air pollution and waste disposal for the Boguty Project area: No. KZ49VCZ00645044 dated 10 August 2020 for the period 2020-2029; valid until 31 December 2029.

- Water withdrawal from the Charyn River: No. KZ17VTE00269837 dated 10 December 2024 for domestic and industrial uses during the period of operation, limited to an estimated consumption volume of 4,293,150 m^3/year, valid until 11 November 2029.

12.5 Stakeholder engagement

The Project is currently in the construction stage. During the design stage, Zhetisu actively engaged with stakeholders through public hearings as part of the EIA process while developing various design documents. On 12 March 2014, public hearings were conducted specifically for the EIA of the Project. Around 40 individuals attended these hearings. The stakeholders raised inquiries regarding employment opportunities, vocational training for the local population, benefits for local residents, and concerns about the potential impact of the Project on the health of the local residents.

Currently, Zhetisu is continuing its engagement as outlined in the memorandum described below. In 2021, a memorandum of cooperation was signed between Zhetisu and the Akimat of Yenbekshikazakh district. According to the memorandum, the Company has the following obligations:

- Adhere to all norms and regulations concerning production process safety and environmental safety.

- Provide employment opportunities for the local population.

- Train local personnel.

- Notify the Akimat within 3 working days of the availability of vacant job positions.

- Procure goods, services and works from local producers.

- Comply with the legislation of the Republic of Kazakhstan regarding social partnership and regulation of social and labor relations.

- Fulfill other obligations of general concern.

Between 2021 and 2022, Zhetisu invested KZT 161M to meet the needs and requirements of the Sogeti rural district and its residents in the following areas:

- Payment of KZT 20M for irrigation water for the district's arable lands.

- Allocation of KZT 10M for the provision of water supply to the school in Nura village.

- Purchase and transfer of four pieces of expensive specialised machinery worth KZT 63M to the agricultural cooperative 'Sogeti.'

- Purchase of expensive agricultural machinery amounting to KZT 68M.

- Provision of cell phones and suitcases for graduates of the school in Nura village.

- Provision of a full set of stationery for first graders at the school in Nura village.

Additionally, the Company annually transfers KZT 149M to the budget of the Almaty region for socio-economic development and infrastructure. In total, KZT 741M has been transferred to the budget of the Almaty region between 2018 and 2023.

12.5.1 Environmental and social obligations

The environmental permits include the following conditions:

- Operate the mine within approved limits for air emissions, effluent and wastewater discharges, and waste disposal.

- Implement in full the approved Environmental Action Plan, which is a part of the permit.

- Report on a quarterly basis to the regulatory authorities on the implementation of the environmental activities and permitted and actual emissions, effluent discharges, and waste disposal.

12.5.2 *Closure liabilities*

The Project has a closure plan known as the 2019 Closure Plan, which was developed by VNIItsvetmet. However, this closure plan and its cost estimate only encompass the mining area, including the open pit, WRDs and auxiliary infrastructure. The processing plant and TSF are not included in this closure plan. The total land area designated for closure is 372.1 ha, with an estimated closure cost of KZT 738M (approximately US$1.6M). The closure plan was updated in 2022 by VNIItsvetmet. The updated closure cost is KZT 901M (approximately US$1.9M).

In 2023, ANTAL developed a closure plan specifically for the processing plant and TSF to fulfill the reporting requirements for Asset Retirement Obligation (ARO) as of the end of the 2023 financial reporting period, following the guidelines of the International Financial Reporting Standards (IFRS). This plan represents the current closure liability, but this can potentially serve as a basis for developing closure plans and costs that accurately represent the closure liabilities at the end of the LOM for the TSF, processing plant, and associated infrastructure.

12.5.3 *Other regulatory requirements*

Other regulatory requirements that may apply to the Project in the future include:

- The requirement to reduce the environmental impact of operations by implementing BAT, starting from 2025. Failure to implement BAT may result in progressive increases in emissions payments. It is necessary to implement BAT when the mining operation commences.

- Special requirements for industrial waste disposal sites, which involve conducting a geochemical characterization of waste rock, installing an impermeable membrane for WRDs, establishing a stormwater collection system, and complying with other provisions outlined in clause 5, Article 238 of the Environmental Code.

- The mandatory implementation of an automated monitoring system for category I operations, effective from 1 January 2023.

- Compliance with closure requirements, including the obligation to provide financial provisions for closure.

12.5.4 *Biodiversity and protected areas*

The Charyn State Nature Park is located near and downstream of the Project area, and the water intake station for the Project and route of the water supply pipeline from the Charyn River pass through the Park's territory (Figure 3.5).

According to the existing legislation, the Charyn State National Park holds the status of a nature protection and scientific institution of national significance, and it falls under the jurisdiction of the Committee of Forestry and Wildlife of the Ministry of Ecology and Natural Resources.

The establishment of the Charyn State National Nature Park was authorized by Resolution No. 213 on 23 February 2004. Initially spanning an area of 93,150 ha, the park aimed to preserve and restore the unique natural complexes of the Almaty region, which hold significant ecological, historical, scientific, aesthetic and recreational value. Subsequently, through Decree No. 121 dated 6 February 2009, the Park's territory was expanded by an additional 32,900 ha, incorporating lands from the state land reserve and lands designated for defense purposes. The total area of the Park currently stands at 127,050 ha.

SRK sighted a letter dated 3 July 2020 from the Almaty Regional Territorial Inspectorate of Forestry and Wildlife which stated that along the pipeline route, there are migration paths and habitats of wild animals, including rare and endangered species of ungulates, as well as locations where rare and endangered plant species grow.

12.5.5 Cultural heritage

An archaeological survey was conducted in August 2020 by a licenced archaeological company. Overall, three cultural heritage sites were identified: one archaeological monument and two cemeteries. Examining the burial methods, the archaeologists concluded that the identified monument belongs to the Iron Age. The other two sites are a 19th century cemetery and a Muslim cemetery of the 17th to 18th centuries.

12.6 Recommendations

The following section summarizes the key recommendations related to the environmental and social aspects of the Project.

12.6.1 Change in legal requirements in Kazakhstan

ESG-related legislation in Kazakhstan is undergoing rapid development and strives to align with international best practices. Updated legal requirements may necessitate additional efforts to ensure compliance, resulting in extra expenses for permitting, management, operations and capital investment. Examples of such changes may include new standards and the need for implementing new control measures such as emissions control, discharge management, water abstraction and treatment, and waste management facilities. Additionally, decarbonisation initiatives, carbon taxes, and other measures may be introduced.

It is recommended that the Company closely monitors changes in legal requirements, proactively adapts to them, and establishes and maintains a compliance obligations register.

12.6.2 Biodiversity

Biodiversity, being an important aspect, may reduce project attractiveness if context and impacts are not characterised properly. Habitats in the vicinity of the Project have not been delineated and the biodiversity values of these habitats have not been determined. Monitoring of biodiversity and ecosystems impacts is not a part of the management system. Moreover, the Project is located close to, and the water supply pipeline route is within, a protected area with potentially protected species and migration routes.

For this reason, it is recommended that a biodiversity study be undertaken. Improvement in biodiversity context understanding is required to define potential impacts. As required in the environmental management plan, initiating and carrying out field studies on biodiversity across the Project's footprint and water delivery pipeline route located within the boundaries of the national park should be actioned. Data across all seasons should be collected. A positive approach to biodiversity conservation will be beneficial in terms of future access to financial capital and ESG credentials of the mineral products.

12.6.3 Closure plan and liability estimate

The existing closure plans and cost estimates only the mining area, including the open pit, WRDs and auxiliary infrastructure.

In 2023, ANTAL created a closure plan for the processing plant and TSF to meet the reporting obligations for ARO by the end of the 2023 financial reporting period, in accordance with the International Financial Reporting Standards (IFRS) guidelines. This plan reflects the existing liability, and it can potentially be used as a foundation for developing accurate closure plans and costs that represent the closure liabilities at the end of the LOM for the TSF, processing plant, and associated infrastructure.

12.6.4 Mine waste geochemistry

Mining activities often carry the risk of acid rock drainage and metal leaching (ARDML). To properly assess the potential for ARDML, appropriate static and kinetic testwork should be conducted. If the static testwork reveals a significant risk, kinetic testing should also be conducted. These tests are typically time-consuming and can become critical in future development studies. Therefore, it is advisable to initiate these studies early on, along with gaining a thorough understanding of the potential pathways through which ARDML could impact the surrounding environment, including soils, surface water and groundwater.

The WRDs at the Project are situated on the northern side of the mountain ridge. In the event of ARDML, potential drainage pathways would lead towards the transboundary Ili River, potentially affecting the quality of soils, surface water and groundwater.

Currently, ARDML characterization of the waste rocks for the Project has not been conducted. A high-level review of the geological and mineralogical data indicates low levels of sulfide materials. However, without understanding the potential for ARDML based on appropriate testwork, it is impossible to accurately assess the impact of waste rocks on soils, surface water and groundwater. These risks and impacts can have long-term consequences and may require additional management measures during both the operation and closure phases.

A review of the available geological, mineralogical and lithological data is recommended as part of developing an ARDML sampling program. Additionally, conducting static ARDML testing is essential to understand the level of risk and determine the need for kinetic ARDML testing and further management measures.

12.6.5 Climate change mitigation

Currently, there is no assessment or mitigation and adaptation strategy in place regarding climate change. The impact of climate change can potentially have significant effects on operations, such as increased temperatures, more frequent and intense extreme weather events, and changes in precipitation patterns. Climate change considerations and reporting requirements are prevalent, including those imposed by stock exchanges like HKEx.

It is imperative to assess the significant climate-related issues that may impact the operation and to develop appropriate adaptation and mitigation measures. These measures should aim to effectively manage the identified issues and, if necessary, integrate them into the Project's operational practices. Taking proactive steps to address climate-related concerns is crucial for the long-term sustainability and resilience of the Project.

12.6.6 Cultural heritage

In connection with the archaeological and cultural monuments noted in Section 12.5.5, it is necessary to instruct workers and management personnel on the protection of historical and cultural monuments during any earthworks. Moreover, it is necessary to control driving along designated routes to prevent damage to unidentified cultural heritage sites.

The identified monuments should be protected by a 50 m buffer zone around their boundaries and should be marked with protective signs or other fences on the line of their boundaries. Installing signs on four sides that indicate the name of the object and the area of its protection zone, is recommended. In addition, it is necessary to prohibit any industrial activity closer than 50 m from the established protection zone.

Furthermore, the Company has not established a formal chance find procedure. In the event of discovering any cultural, historical or archaeological objects/sites, the Company should adhere to the legislation pertaining to cultural and historical heritage, which outlines the necessary actions to be taken. Company personnel should be informed about the requirements of this procedure and follow it diligently if they come across any potential findings related to cultural, historical or archaeological objects/sites.

12.6.7 Stakeholder engagement

While Zhetisu engages with stakeholders through public hearings during the development of various design documents as part of the EIA process and under the scope of the memorandum with local authorities, there is currently no formal stakeholder engagement plan for the Project that would identify and organize communication with potentially affected stakeholders. It is important to establish a structured engagement plan that consolidates the ongoing engagement efforts into a formal document. This plan should outline the overall strategy and goals of stakeholder engagement and provide guidance on the actions to be taken. It should also demonstrate how risks and impacts are assessed and mitigated throughout the project's lifecycle. Having a formal stakeholder engagement plan will ensure effective communication and enhance transparency and accountability in addressing stakeholder concerns.

13 STRATEGIC DEVELOPMENT PLAN

The Company aims to establish a vertically integrated processing and refinery facility at its site, expanding beyond tungsten concentrate to produce downstream products, including APT and, tungsten carbide powder (WC). This strategic development will potentially increase profit margins of the Company but also enable the Company to expand its customer base globally. To support this initiative, the Company has prepared a comprehensive business proposal titled 'Proposal on Tungsten Beneficiation and Refining.' The proposal includes research on APT and WC markets and prices, end-use analysis, and a conceptual study on the refinery's location, production capacity, refining technology, and required capital.

The proposed refinery will be constructed in the immediate vicinity of the current processing plant. The existing infrastructure will be upgraded and developed in stages, starting with an initial annual nameplate capacity of 10,000 t of APT and 4,000 t of WC. The primary feedstock for the APT plant will be tungsten concentrate from the Project. The construction of the refinery is estimated to take 2 years, with commissioning scheduled for year 3. By year 4, the target annual production rate of 10,000 t of APT will be achieved. From year 5 onwards, a portion of the APT produced will undergo further processing to yield an annual output of 4,000 t of WC.

The Company plans to conduct a feasibility study over the next 2 years to investigate the technical and economic viability of the proposed refinery. This study will provide a comprehensive assessment of the Project's potential, confirming its feasibility and forming the basis for its successful implementation. A memorandum on the construction of a refinery for the Project has been signed with the local government, showing the support of the Company's strategic development plan at national level. Kazakhstan also has numerous tax incentives and exemptions related to investment in the refinery.

14 CONCLUSION

Jiaxin is currently developing the Boguty Tungsten Project, which is located 180 km east of Almaty, the largest city of Kazakhstan, and 160 km west of the Chinese border. The Project is covered by a mining licence, measuring an area of 1.16 km^2, which is valid from 2 June 2015 to 2 June 2040 (a duration of 25 years).

Located in the southern part of the Boguty Syncline, the geology of the Project area is represented by Palaeozoic sandstone, siltstone and shale. The folded sedimentary succession is cut by granitic rocks along a series of north-trending rocks. The mineralisation primarily consists of quartz-scheelite veins occurring as stockworks and veinlets, ranging in size from a few to tens of centimetres. Disseminated scheelite veins or blebs also occur in the surrounding sediments. The known mineralisation extends over a length of approximately 2 km to the northeast and has a lateral extent of 400 m towards the east. The mineralisation dips subvertically to the northwest to a depth of at least 500 m.

Exploration to date has defined Mineral Resources in accordance with the JORC Code (2012) including 97.6 Mt of Indicated Mineral Resource at an average grade of 0.210% WO_3, equivalent to 204.5 kt of contained WO_3, and 11.9 Mt of Inferred Mineral Resource at 0.228% WO_3, equivalent to 27.1 kt contained WO_3.

The Project is designed as an open pit mine, consisting of conventional drill, blast, load and haul with a planned ore feed of 4.95 Mtpa ore. Pre-stripping and mining operations are carried out by a contractor. Mining operations commenced in late October 2024. The Project currently hosts Probable Ore Reserves in accordance with JORC Code guidelines — 68.4 Mt of ore with an average grade of 0.206% WO_3, equivalent to 140.8 kt contained WO_3.

The scheelite ore will be processed by a two-stage crushing — ore sorting — tertiary crushing — grinding circuit, along with a flotation concentrator using a single-stage rougher, three-stage scavenger, and three-stage cleaner process. The final product is expected to comprise a scheelite concentrate containing 65% WO_3. Trial production commenced in November 2024 and commercial production commenced in April 2025. The processing plant will be developed in two phases. In Phase I, the flowsheet does not include the ore sorting circuit and has a tungsten recovery of 83% (75% in H2 2025). In Phase II, the addition of ore sorting will enhance the pre-concentration of crushed ore from 15,000 tdp to 10,000 tpd, with a 33.33% waste rejection. The overall tungsten recovery is forecast at 78.85%. Pre-concentration by ore sorting will start in 2027 and enhance the Project's overall economic return by reducing the grinding cost.

The key infrastructure of the Project includes roads, water and power supplies and an accommodation camp. The Project is connected to the major A2 highway via graded sands and gravel road for a few kilometres. The power is connected to the grid via a new 7 km-long overhead line. The water is sourced from the Charyn River, located approximately 22 km southeast of the Project.

The TSF covers an area of approximately 3.5 km^2 with a designed storage capacity of 39.2 Mm^3, which provides sufficient tailings storage capacity over the LOM. The TSF is developed in three stages: the Phase 1 embankment (1,143 m) will be raised to 1,152 m in Phase 2 and 1,157 m in Phase 3.

The Project's capital cost has been incurred since 2020. From CY2020 to H1 CY2025, a total of RMB1,712.0 million has been incurred. The budgeted amounts for H2 CY2025 and CY2026 are RMB315.5 million and RMB309.3 million, respectively. The total capital cost, including both incurred and forecast capital cost for the initial development of the Project, amounts to RMB2,236.3 million. The TSF raising is planned for Phase 2 and Phase 3 in 2026 and 2034, respectively, at a total cost of RMB466.0 million. The total cost for the initial development, subsequent raising of the TSF and mine closure amounts to RMB2,719.3 million.

In H2 CY2025, the projected total operating cash cost is RMB331.0 million, with a cost of 200 RMB/t ore and 91,000 RMB/t concentrate. By CY2027, as the Project reaches its target production rate of 4.95 Mtpa and the ore sorting system for the Phase II development is installed, the total operating cash cost is expected to increase to RMB606.1 million, but the operating cash unit cost is projected to decrease significantly to 122 RMB/t ore and 44,400 RMB/t concentrate.

There are no identified significant environmental and social issues that would potentially disrupt the mining and processing operation.

Jiaxin has achieved a number of commissioning targets to date. The installation of processing plant equipment was completed in the second half of CY2024. In November CY2024, a trial production phase commenced and fine-tuning of the processing operation was undertaken. Phase 1 commercial production commenced in April 2025, with an annual throughput target of 3.3 Mt of ore. In the second half of CY2026, the processing throughput will increase as a result of integrating the ore sorting system. From the first quarter of CY2027, the plant will enter Phase II commercial production, targeting a processing throughput of 4.95 Mtpa of ore.

SRK has conducted a detailed review of the Project's key technical aspects, including the Preliminary Design by ENFI, technical studies, the latest construction and trial production reports, and the Company's actual and forecast capital costs, as well as target latest commission dates for each production phase.

In SRK's opinion, the Preliminary Design by ENFI and other technical studies are reasonable and adequate, and provide a solid foundation for the Project's construction and development.

The Company has developed comprehensive plans to meet commissioning targets and address challenges encountered during the initial phase of production. These plans include implementing a strategic mining approach and optimizing the processing flowsheet by using an ambient-temperature cleaning process. Phase I commercial production commenced in April 2025. Plans are in place for Phase II commercial production in early 2027. The production schedule for each development phase is considered reasonable.

Overall, SRK finds the Project technically and economically viable, with plans reflecting a balanced and well-considered approach. In addition, SRK considers the identified risks have been properly managed.

15 RISK ASSESSMENT

This section presents risks that were identified and described in the preceding sections.

Risks have been classified from major to minor, defined as follows:

- **Major risk**: The factor poses an immediate danger of a failure which, if uncorrected, will have a material effect (>15% to 20%) on the project cashflow and performance and could potentially lead to project failure.

- **Moderate risk**: The factor, if uncorrected, could have a significant effect (10% to 15-20%) on the project cashflow and performance unless mitigated by some corrective action.

- **Minor risk**: The factor, if uncorrected, will have little or no effect (<10%) on project cashflow and performance.

In addition to the risk factor, the likelihood of risk must also be considered. Likelihood of occurrence within a 7-year timeframe can be considered as:

- likely: will probably occur.

- possible: may occur.

- unlikely: unlikely to occur.

Table 15.1: Risk assessment matrix

	Consequence		
Likelihood	**Minor**	**Moderate**	**Major**
Likely	Medium	High	High
Possible	Low	Medium	High
Unlikely	Low	Low	Medium

The results of the risk assessment rating are presented in Table 15.2. The rating of the risks is presented before implementation of control recommendations.

Table 15.2: Project risk assessment

Risk	Description	Control Recommendations	Likelihood	Consequence	Rating
		Mineral resource			
Lower ore grade	Lower ore grade than estimated in the resource model.	Impose a systematic grade control protocol. Reconcile the grades obtained from in-pit sampling and production figures with the grade in the resource model.	Possible	Moderate	Medium
		Mining			
Production plan	The stripping ratio is high in the early stage and it may be challenging to meet ore production targets.	Ensure that contractor can fulfill the obligations to meet the production plan and resolve issues that could cause production delays.	Unlikely	Moderate	Low
Stockpile management	Inadequate space for ore stockpile.	A backup stockpile plan should be developed if the stockpile is full.	Unlikely	Minor	Low
Equipment shortage	Insufficient quantity of production equipment as a result of unstable total material movement.	Ensure that the amount of equipment that contractors provide is flexible and can meet the production plan.	Possible	Minor	Low
		Processing			
Unable to achieve the designed performance of ore sorting, resulting in an over-estimate in ore processing capacity and tungsten concentrate yield	Ore sorting facility is designed with waste reject rate of 33.33% and metal loss of less than 7.1%. With ore sorting, the processing capacity can increase from 10 ktpd to 15 ktpd. Laboratory tests could achieve the designed performance, but the sample grades vary, indicating uncertainty on the actual reject rate and metal loss percentage.	Carry out industrial-scale test on ore sorting after completion of Phase I construction.	Possible	Moderate	Medium
Impact of return water on tungsten recovery	Return water contains large amount of sodium silicate, potential flocculants and other unavoidable ions which could have a negative impact on scheelite recovery.	Continually monitor the effect of return water on processing indices during actual production. Carry out treatment on return water when necessary.	Unlikely	Moderate	Low

Risk	Description	Control Recommendations	Likelihood	Consequence	Rating
		Infrastructure			
Damage to pipeline from Charyn River, and subsequent effect on supply of processing water to the plant. . . .	The planned extraction of make-up water from the Charyn River is a risk should the pipeline become damaged.	Adequate design and construction of the pipeline. Monitoring and maintenance of the pipeline.	Possible	Minor	Low
		TSF			
Reduction of available water in Charyn River, and subsequent effect on supply of processing water to the plant. . . .	The planned extraction of make-up water from the Charyn River is a risk should this resource become limited.	Conduct climate change assessment for the Project to identify the associated risks to water supply and maximize water recycling and re-use.	Unlikely	Moderate	Low
Lack of TSF underdrainage in the design will lock up a portion of return water	A proportion of the return water will be locked up in deposited tailings.	Install underdrainage or an alternative means of returning this water to the Plant (e.g. well point system).	Possible	Minor	Low
		Cost			
Higher operating cost . . .	Higher operating cost, resulting in poor financial performance	Secure a long-term contract at a favorable exchange rate with suppliers and confirm advanced procurement orders with them.	Possible	Moderate	Medium
Lower commodity price .	A decline in commodity price, leading to poor financial results.	Regularly monitor commodity price trends, market forecasts, and industry developments to proactively identify potential risks and opportunities. Develop contingency plans and scenario analyses to assess the financial impact of different price scenarios and adjust strategies accordingly.	Possible	Moderate	Medium

Risk	Description	Control Recommendations	Likelihood	Consequence	Rating
		Environment and Social			
Changes in Charyn River flow and/or legal permitting regime may result in risk of limitation of water availability	Changes in Charyn River flow or permitting regime of the National Park may result in risk of limitation of water available for abstraction from the river for processing purposes.	Conduct climate change assessment for the Project to identify the associated risks to water supply and maximize water recycling and re-use.	Unlikely	Moderate	Low
Insufficient understanding of surrounding land use types that may result in additional risks and impacts	The detailed surrounding land use mapping has not yet been completed for the Project. Doing so is necessary as it furthers the understanding of how the land use can be affected by mining and processing operations and informs the potential post-closure land use options.	Carry out a land use study to understand any potential risks and impact and extend the existing fencing around the Project area to prevent any grazing cattle from accessing the area and its facilities.	Possible	Minor	Low
Lack of understanding of biodiversity of the Project area resulting in potential loss of biodiversity	Risk of net biodiversity loss due to lack of understanding of biodiversity context and management measures. The Project is located close to a water abstraction point and a supply pipeline route is within an area that may have protected species and migration routes.	As required in the environmental management plan, initiate and regularly carry out the field studies on biodiversity for the Project footprint and water intake and supply pipeline route located within the boundaries of the national park. Develop appropriate mitigation measures to mitigate identified risks.	Possible	Minor	Low

Risk	Description	Control Recommendations	Likelihood	Consequence	Rating
Lack of understanding of mine waste geochemistry (acid rock drainage and metal leaching (ARDML) properties), resulting in additional expenditure for management to prevent pollution	Potential for ARDML of mine waste materials has not been studied. There is risk of pollution of soils downstream of mine waste facilities, groundwater and surface waters.	Carry out a geochemical study to assess risks related to ARDML and develop mitigation measures if required. Additional WRD drainage water collection and treatment facilities may be required if ARDML potential is identified.	Possible	Minor	Low
Incomplete closure plan and liabilities estimate resulting in underestimation of technical and financial implication of Project closure	Existing LOM closure plans and liability estimates only include mining area (open pit, WRDs, auxiliary infrastructure), and the closure plan for the processing plant and TSF only reflects the current liability.	Develop and regularly update a comprehensive closure plan and associated cost estimate, covering the entire mine footprint, including the mining area, processing plant, TSF, and auxiliary infrastructure.	Possible	Moderate	Medium
Lack of understating of potential climate changes of the Project area resulting in additional mitigation and adaptation requirements	Effects of climate change may impact the performance of operation. For example, there is currently no climate change-related assessment and management strategy for the Project.	Assess climate change-related significant issues which may impact the operation (see water abstraction). Develop adaptation and mitigation measures to manage the issues, and integrate into project operation practices if required.	Unlikely	Moderate	Low
Insufficient stakeholder engagement resulting in unanticipated stakeholder concerns . .	There is no stakeholder engagement plan for Project that would identify and structure communication with potentially affected stakeholders.	Develop and implement a stakeholder engagement plan to identify all relevant stakeholders, and define means and frequency of communication to strengthen the engagement.	Unlikely	Minor	Low

Risk	Description	Control Recommendations	Likelihood	Consequence	Rating
Non-renewal of licence . .	Operating licence and other key licences are not renewed by the government authorities	Assess the compliance status of all key licences and identify any potential areas of non-compliance. Take prompt action to rectify any deficiencies or violations, ensuring strict adherence to ESG standards.	Unlikely	Major	Medium
Export restrictions	Kazakhstan government imposing tungsten concentrate export restrictions.	Consider establishing local downstream processing facilities to add value to the tungsten concentrate within Kazakhstan. By processing the concentrate domestically, mining companies can potentially bypass export restrictions and access higher-value markets for processed tungsten products.	Unlikely	Major	Medium
Delay in commencement of production	Construction delay or other issues identified during trial production result in the delay of commercial production.	Implement robust project management practices to ensure timely completion of construction activities and successful trial production.	Possible	Moderate	Medium

Source: SRK

CLOSURE

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Jeames McKibben
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All data used as source material plus the text, tables, figures, and attachments of this prospectus have been reviewed and prepared in accordance with generally accepted professional engineering and environmental practices.

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APPENDIX A LIST OF TRENCHES

Trench ID	X	Y	Z	Azimuth	Dip	Length
						(m)
K10	14335468.6	4824106.8	1532.135	125.38	18.09	92.19
K10a	14335573.8	4824034.473	1579.62	121.21	35.47	152.64
K10b	14335692.3	4823978	1543.613	104.16	-28.7	40.8
K11	14335639.76	4824056.3	1574.06	127.59	-27	153.76
K12	14335361.2	4824288.6	1621.273	120.66	-31.4	168.34
K12a	14335512	4824196.813	1550.262	122.38	4.87	16.67
K12b	14335542.06	4824177.755	1564.323	122.38	30.96	529.64
K13	14335651.55	4824165.5	1590.863	124.48	-35.9	216.74
K14	14335574.73	4824281.86	1576.416	125.1	-27.1	80.68
K14+15m	14335741.75	4824187	1566.359	117.37	25.36	84.48
K14a	14335635.42	4824235.6	1595	120.82	0	9.64
K14b	14335638.01	4824222.66	1596.645	124.26	-16.1	118.42
K14c	14335728.1	4824177.2	1561.232	121.81	14.46	157.45
K15	14335647	4824289.2	1600	122.02	0	285.52
K15a	14335893.68	4824114.69	1554.076	1.63	16.1	41.06
K16	14335659.2	4824337.6	1617.022	122.12	-14.9	231.08
K16a	14335863.44	4824211.217	1563.186	123.15	-2.33	182.24
K16b	14336019.34	4824114.263	1579.205	122.46	13.88	51.09
K17	14335683.8	4824380.6	1635.495	121.7	-27.1	248.16
K17a	14335899.49	4824247.521	1573.846	117.2	35.29	178.71
K18	14335779.8	4824380	1607.652	117.07	8.17	154.84
K18a	14335905.92	4824297.61	1575	118.94	0	54.37
K18b	14335954.76	4824269.02	1605	121.47	0	275.91
K19	14335882.8	4824369.2	1614.033	112.04	-28.2	77.95
K19a	14335949.94	4824329.236	1593.01	123.72	-5.18	17.3
K19b	14335966.09	4824319.568	1590	119.67	22.53	137.89
K20	14335944.1	4824392.63	1622.989	112.54	-32.9	50.35
K20+25m	14335962.32	4824413.288	1623.196	121.02	-36.7	41.68
K20+25ma	14336006.68	4824385.784	1601.828	123.68	18.99	51.82
K20a	14335990.3	4824364.7	1600	121.55	0	471.96
K21	14335959.8	4824443.6	1625.066	120.92	-26.4	44.65
K21+25m	14336007.63	4824443.31	1609.096	120.67	4.69	42.52
K21a	14336010.45	4824412.8	1605	124.21	0	26.37
K21b	14336031	4824397	1608.405	124.38	18.47	30.08
K21c	14336056.62	4824384.116	1615	120.4	0	150.8
K22	14335987	4824485.4	1615	120.96	0	89.82
K22a	14336055.3	4824432.58	1615	116.82	0	32.68
K22b	14336081.4	4824425.8	1624.285	120.04	22.47	138.22
K23	14335982.8	4824552.8	1628.611	122.68	11.11	321.51
K24	14335889.6	4824664	1664.057	121.35	3.84	57.03

Trench ID	X	Y	Z	Azimuth	Dip	Length
						(m)
K24+25m	14336034.68	4824603.505	1641.258	124.19	18.61	77.55
K24a	14335971.31	4824614.223	1635	121.35	-15.9	8.62
K24b	14335987.2	4824603.3	1635	121.56	0	181.61
K24c	14336141.6	4824522.81	1650.684	128.69	-9.28	13.83
K24d	14336148.36	4824503.388	1650.624	121.79	32.6	267.98
K25	14335959.65	4824679.98	1665.282	120.14	-6.66	146.22
K25+25m	14336139.36	4824604.556	1663.859	153.43	3.6	72.18
K25a	14336079.8	4824594	1650.386	108.02	8.77	105.83
K25b	14336171.59	4824549.3	1660	122.37	0	342.92
K26	14336111.8	4824643.8	1671.026	121.76	-24.2	176.42
K26+25m	14336154.71	4824652.95	1678.489	123.49	-6.15	185.98
K26+25ma	14336357.19	4824519.125	1681.323	123.22	-19.3	93.68
K26a	14336274.72	4824544.7	1671.888	119.61	16.55	198.39
K26b	14336278.25	4824537.1	1674.686	272.07	-8.5	43.04
K27	14336157.2	4824679.4	1693.831	121.19	-14.3	457.97
K27+25m	14336469.23	4824513.97	1657.546	126.46	26.77	29.97
K27a	14336368.47	4824569.803	1680	96.62	0	50.58
K28	14336167	4824729.6	1703.416	120.89	-7.75	12
K28+25m	14336224.16	4824729.525	1695.694	138.5	12.39	41.1
K28a	14336183.63	4824719.654	1702.582	120.89	5.88	68.1
K28b	14336247.31	4824680.392	1697.897	121.9	-21.5	229.65
K28c	14336445.11	4824559.763	1668.363	127.04	-21.9	39.41
K28d	14336488.5	4824524.3	1659.956	124.38	19.53	86.1
K28e	14336556.62	4824488.38	1684.387	122.23	-13.3	71.8
K28f	14336619.1	4824450.92	1683.08	120.21	-23.3	41.71
K28g	14336666.12	4824422.565	1670	123.96	23.45	68.46
K28h	14336724.28	4824383.539	1670	122.49	0	22.93
K29	14336194.8	4824771.2	1686.441	121.67	-7.35	532.36
K30	14336265.5	4824783.6	1681.469	121.75	14.28	291.28
K30a	14336489.1	4824642.5	1677.637	119.56	-32.3	57.96
K30b	14336533.3	4824617.6	1675.672	124.2	20.76	302.14
K31	14336246.31	4824858.41	1661.198	120.99	13.54	262.74
K31a	14336448.5	4824722	1717.021	120.53	-30.3	56.87
K31b	14336495.9	4824705.728	1691.638	122.05	-11.5	301.94
K31c	14336862.72	4824475.95	1716.857	123.7	-10.5	95.89
K32	14336169	4824963	1638.443	121.68	12.13	759.94
K32a	14336795.69	4824575.209	1709.748	120.25	-14.5	275.76
K32b	14337037.46	4824426.616	1698.383	118.49	14.24	43.18
K33	14336316.71	4824926.63	1683.739	122.47	-1.86	486.86
K33a	14336917.49	4824555.4	1734.15	120.54	-19.6	86.97
K34	14336416.58	4824927.05	1712.27	122.18	26.83	445.1
K35	14336516.62	4824926.1	1718.693	122.35	5.47	283.58

Trench ID	X	Y	Z	Azimuth	Dip	Length
						(m)
K35a	14336320.68	4825047.54	1674.959	121.03	20.88	99.47
K36	14336449.83	4825027.08	1709.282	122.4	-8.62	445.58
K37	14336565.3	4825024.16	1713.476	127.93	-31.7	270.73
K38	14336604.48	4825051.1	1680.914	119.53	-30.1	331.08
K39	14336639.94	4825085.112	1654.909	122.2	-16	205.21
K39a	14336902.45	4824933.25	1758.584	104.34	29.29	141.97
K4	14335494.57	4823735.78	1494.532	125.58	31.87	111
K42	14336796.4	4825167.52	1659.72	121.84	22.85	238
K43	14336907.56	4825160.91	1683.506	124.85	27.5	158.53
K44	14336624.71	4825385.61	1607.513	119.51	33.39	400
K44a	14336955.4	4825185.81	1680.334	122.35	40.74	158.25
K44b	14337083.46	4825109.58	1680.213	124.68	0.95	83.98
K44c	14337168.78	4825049.044	1670	121.55	47.4	26.49
K46	14336960.5	4825304	1656.159	122.83	18.61	151.18
K48	14336898.5	4825452.5	1629.178	124.43	16.74	96.47
K48a	14336985	4825398.683	1601.615	121.35	20.44	193.65
K5	14335520.75	4823764.49	1510.217	130.19	28.1	63.1
K50	14337019.09	4825499.513	1583.066	121.91	23.77	48.58
K50a	14337079.4	4825461.883	1592.089	121.96	23.76	62.41
K52	14336980.85	4825645.04	1603.653	121.4	26.68	252.7
K6	14335503	4823831.53	1501.846	122.88	24.61	189.53
K7	14335589.5	4823862.5	1563.381	133.17	27.5	92.8
K8	14335307.89	4824081.996	1584.857	118.45	-24.4	61.04
K8a	14335366.19	4824050.406	1561	118.45	5.28	155.15
K8b	14335588.59	4823906.59	1566.216	121.38	8.6	163.22
K9	14335625.19	4823944.88	1574.15	126.65	-38.3	105.19

APPENDIX B LIST OF CROSS-CUTS IN ADITS

Cross-cut ID	X	Y	Z	Azimuth	Dip	Length
						(m)
517C3_N	14335966.68	4824215.001	1566.1	297.96	0	11
517HB_N	14335968.45	4824213.634	1566.02	125.63	0	10
518C3_N	14335987.78	4824252.462	1566.95	300.25	0	120
518C3_S	14335986.49	4824250.221	1566.95	300.34	0	120
518HB_N	14335991.09	4824251.648	1566.01	116.66	0	53.5
519C3_N	14336013.09	4824296.377	1566.3	303.83	0	10
519HB_N	14336015.67	4824294.529	1567.089	121.22	0	9
520C3_N	14336038.15	4824338.071	1567.36	299.54	0	127
520HB_N	14336039.78	4824337.464	1566.67	120.25	0	100
521C3_N	14336063.46	4824381.845	1566.99	299.26	0	126
521C3_S	14336062.06	4824379.174	1566.99	299.65	0	126
521HB_N	14336065.37	4824380.71	1566.935	117	0	10
522C3_N	14336088.11	4824423.553	1567.49	308.94	0	141.5
522C3_S	14336086.63	4824421.963	1567.49	308.92	0	141.5
522HB_N	14336089.71	4824422.819	1567.29	120.84	0	57
523C3_N	14336113.98	4824468.456	1568.6	302.78	0	162
523C3_S	14336112.53	4824465.985	1568.6	302.46	0	162
523HB_N	14336115.94	4824466.913	1567.516	117.75	0	10.7
524C3_N	14336139.47	4824513.233	1568.64	300.35	0	198.8
524C3_S	14336138.2	4824511.121	1568.64	300.42	0	198.8
524C3a_S	14336064.47	4824554.774	1568.64	269.46	0	18
524HB_N	14336141.85	4824511.354	1568.39	120.92	0	180.8
524HB_S	14336140.1	4824508.781	1568.39	120.53	0	180.8
525C3_N	14336180.52	4824537.144	1568.59	309.13	0	11.9
525HB_N	14336185.76	4824535.449	1568.52	114.96	0	16
526C3_N	14336245.94	4824566.497	1569.79	300.76	0	162
526C3_S	14336242.58	4824564.713	1569.79	300.83	0	160
526HB_N	14336250.54	4824565.046	1569.39	123.53	0	191.8
526HB_S	14336247.12	4824563.535	1569.39	123.32	0	193.8
526HBa_N	14336286.45	4824548.218	1567.979	105.61	0	40
526HBa_S	14336303.13	4824539.653	1567.979	103.01	0	22
526HBb_N	14336312.39	4824528.339	1567.979	107.32	0	46
527C3_N	14336300.34	4824590.503	1568.331	301.45	0	93.5
527C3_S	14336282.63	4824597.972	1568.331	301.81	0	74.5
527HB_N	14336303.66	4824589.084	1568.59	120.73	0	116.1
527HB_S	14336300.6	4824588.261	1568.59	121.05	0	118.1
528C3_N	14336354.63	4824614.913	1568.79	300.54	0	136.5
528C3_S	14336353.13	4824612.473	1568.79	300.76	0	136.5
528HB_N	14336356.74	4824614.538	1568.5	116.86	0	211
528HB_S	14336354.57	4824611.052	1568.5	117.19	0	211

Cross-cut ID	X	Y	Z	Azimuth	Dip	Length
						(m)
528HBa_N	14336443.07	4824555.168	1568.5	82.76	0	16
529C3_N	14336408.19	4824640.163	1568.6	307.9	0	10.8
529C3_S	14336406.71	4824637.995	1568.6	308.13	0	10.8
529HB_N	14336411.35	4824640.663	1568.61	124.24	0	25.7
529HB_S	14336409.62	4824638.946	1568.61	124.91	0	25.7
530C3_N	14336467.61	4824667.801	1570.08	300.76	0	130.7
530C3_S	14336466.29	4824665.809	1570.08	300.74	0	130.7
530C3a_N	14336367.24	4824721.905	1570.08	255.52	0	4
530HB_N	14336465.77	4824666.801	1570.25	121.68	0	173.5
530HB_S	14336463.66	4824663.327	1570.25	121.3	0	173.5
530HBa_N	14336554.13	4824612.059	1570.25	96.9	0	13
531C3_N	14336518.49	4824691.346	1568.6	304.08	0	44.6
531C3_S	14336517.52	4824689.842	1568.6	303.54	0	44.6
531HB_N	14336519.29	4824689.7	1569.4	114.73	0	21.5
531HB_S	14336518.38	4824686.981	1569.4	113.07	0	21.5
532C3_N	14336571.29	4824715.592	1570.55	302.38	0	223.5
532C3_S	14336569.87	4824713.651	1570.55	302.45	0	223.5
532C3a_N	14336485.18	4824764.797	1570.55	249.57	0	13
532HB_N	14336576.4	4824717.95	1569.95	121.97	0	129.5
532HB_S	14336574.56	4824714.961	1569.95	121.41	0	129.5
534C3_N	14336628.83	4824802.229	1570.31	302	0	125.3
534C3_S	14336627.45	4824800.025	1570.31	302	0	125.3
534HB_N	14336629.18	4824802.236	1570.31	121.57	0	74.3
534HB_S	14336627.28	4824799.126	1570.31	121.17	0	74.3
536C3_N	14336666.08	4824894.87	1571.31	300.87	0	115
536C3_S	14336664.6	4824892.151	1571.31	300.97	0	115
536HB_N	14336667.72	4824893.248	1571.06	121.77	0	71.8
536HB_S	14336665.82	4824890.189	1571.06	121.45	0	71.8
538C3_N	14336700.98	4824989.564	1572.34	301.32	0	107.5
538C3_S	14336699.27	4824986.796	1572.34	301.67	0	107.5
538HB_N	14336701.42	4824988.026	1572.01	120.37	0	89
538HB_S	14336700.09	4824986.11	1572.01	120.01	0	89
540C3_N	14336737.55	4825084.984	1572.73	293.75	0	6.5
540HB_N	14336741.69	4825083.774	1572.73	128.32	0	6
5MA16-17_W	14335940.82	4824170.769	1565.49	30.15	0	8
5MA17-18_E	14335973.31	4824221.156	1566.003	31.41	0	9
5MA18-19_W	14336008.67	4824286.472	1566.215	31.49	0	10
5MA20-27_W	14336041.39	4824342.129	1566.473	29.48	0	384
5MA28-29_W	14336376.81	4824625.321	1568.594	64	0	10.8
624C3_N	14336285.44	4824423.432	1626.86	301.6	0	327
624C3_S	14336283.39	4824421.152	1626.86	301.7	0	327
624C3a_N	14336183.14	4824481.781	1626.2	250.2	0	14.2

Cross-cut ID	X	Y	Z	Azimuth	Dip	Length
						(m)
624C3b_N	14336108.71	4824529.055	1626.2	270.1	0	19.7
624HB_N	14336288.51	4824421.339	1625.85	125.2	0	9.5
624HB_S	14336287.08	4824419.052	1625.85	123.4	0	9.5
625.5C3_N	14336276.36	4824528.083	1625.91	274.4	0	8
625C3_N	14336281.46	4824484.523	1626.62	301.1	0	244
625C3_S	14336280.24	4824481.853	1626.62	301.2	0	244
625C3a_N	14336172.68	4824546.75	1626.62	242.3	0	16
626C3_N	14336276.18	4824545.893	1626.61	300.6	0	190
626C3_S	14336274.05	4824542.25	1626.61	301.1	0	190
626C3a_N	14336182.13	4824597.322	1626.61	255.3	0	15
626HB_N	14336280.81	4824543.425	1626.15	122.1	0	75
626HB_S	14336279.62	4824541.49	1626.15	122.2	0	75
627C3_N	14336326.53	4824573.98	1626.51	307.3	0	167.5
627C3_S	14336325.38	4824571.106	1626.51	307.4	0	167.5
627C3a_N	14336212.5	4824637.292	1626.51	258.2	0	15
627HB_N	14336328.71	4824573.155	1626.88	121.9	0	130.5
627HB_S	14336327.34	4824570.342	1626.88	121.5	0	130.5
628C3_N	14336373.06	4824600.235	1627.04	301.3	0	161.5
628C3_S	14336369.94	4824596.74	1627.04	301.6	0	161.5
628HB_N	14336377	4824602.61	1626.72	120.5	0	120
628HB_S	14336374.96	4824599.367	1626.72	120.5	0	120
629C3_N	14336424.18	4824632.022	1627.41	296.6	0	80
629C3_S	14336422.93	4824629.592	1627.41	298	0	80
629HB_N	14336430.42	4824633.619	1626.91	123.5	0	140.3
629HB_S	14336428.15	4824630.376	1626.91	122.7	0	140.3
630C3_N	14336470.17	4824659.878	1627.04	302.3	0	60
630C3_S	14336468.86	4824657.748	1627.04	302.2	0	60
630HB_N	14336477.11	4824658.951	1627.09	120.7	0	140
630HB_S	14336475.64	4824656.497	1627.09	120.7	0	140
631C3_N	14336522.16	4824690.132	1628.6	302.8	0	65
631C3_S	14336519.98	4824687.021	1628.6	304.3	0	65
631HB_N	14336525.16	4824688.688	1629.6	120.5	0	104
631HB_S	14336519.96	4824687.708	1629.6	119.6	0	108
632C3_N	14336566.61	4824714.492	1627.23	301.9	0	90
632C3_S	14336565.04	4824712.029	1627.23	302.1	0	90
632HB_N	14336572.34	4824715.371	1627.23	122.2	0	65.5
632HB_S	14336570.72	4824712.778	1627.23	121.8	0	65.5
634C3_N	14336627.78	4824795.677	1627.31	300.4	0	102
634C3_S	14336625	4824794.898	1627.31	300.1	0	100
634HB_N	14336628.38	4824797.014	1627.95	122.3	0	71.5
634HB_S	14336626.52	4824792.566	1627.95	121.9	0	71.5
636C3_N	14336683.9	4824881.35	1628.6	302.5	0	84.8

Cross-cut ID	X	Y	Z	Azimuth	Dip	Length
						(m)
636HB_N	14336687.48	4824880.686	1627.91	122.5	0	83.6
6MA25-26_E	14336281.07	4824496.085	1625.8	355.62	0	42
6MA25-26_W	14336277.61	4824495.79	1625.802	355.61	0	42
704C3_N	14335554.02	4823696.411	1444.5	309.76	0	16
704C3_S	14335548.15	4823692.364	1444.12	348	0	6
704HB_N	14335554.77	4823696.998	1444.45	128.44	0	11
706C3_N	14335589.69	4823790.14	1444.4	301.63	0	42
706C3_S	14335585.42	4823786.061	1444.4	300.77	0	42
706HB_N	14335592.25	4823792.429	1444.34	121.64	0	56.6
708C3_N	14335628.5	4823884.88	1445.1	296.34	0	56.8
708C3_S	14335627.34	4823882.79	1445.1	295.73	0	56.8
708HB_N	14335628.25	4823886.956	1445.2	104.68	0	39
710C3_N	14335661.96	4823971.206	1445.2	305.39	0	35.6
710C3_S	14335659.79	4823968.733	1445.2	303.12	0	35.6
710HB_N	14335666.25	4823975.071	1444.9	118.57	0	44
712C3_N	14335702.34	4824061.921	1445.46	300.76	0	90.6
712C3_S	14335699.82	4824059.326	1445.46	300.46	0	90.6
712HB_N	14335703.06	4824064.83	1445.58	117.16	0	56.8
712HB_S	14335703.11	4824062.301	1445.58	117.97	0	36
714C3_N	14335779.6	4824137.361	1446.08	304.45	0	64.6
714C3_S	14335778.46	4824135.626	1446.08	303.81	0	64.6
714HB_N	14335782.44	4824136.844	1446	117.86	0	19.3
714HB_S	14335780.78	4824133.185	1446.6	111.87	0	19.3
716C3_N	14335866.36	4824217.439	1447.42	316.04	0	37.7
716C3_S	14335864.31	4824215.294	1447.42	316.13	0	37.7
716HB_N	14335866.8	4824215.376	1447.45	115.56	0	81.9
716HB_S	14335865.06	4824211.377	1447.45	115.81	0	81.9
718C3_N	14335936.47	4824279.92	1447.6	306.08	0	51.6
718C3_S	14335931.98	4824275.308	1447.6	305.57	0	51.6
718HB_N	14335942.01	4824286.238	1447.99	120.46	0	36.8
718HB_S	14335940.72	4824284.186	1447.99	120.91	0	36.8
720C3_N	14335993.44	4824360.951	1450	302	0	77.1
720C3_S	14335989.49	4824357.774	1450	300.96	0	77.1
720HB_N	14335996.95	4824368.828	1448.74	122.37	0	51.9
720HB_S	14335994.68	4824360.321	1448.74	122.99	0	51.9
722C3_N	14336045.81	4824442.535	1450.38	302.75	0	75.7
722C3_S	14336042.86	4824439.34	1450.38	303.22	0	75.7
722HB_N	14336052.48	4824451.516	1449.53	103.12	0	15.5
724C3_N	14336111.15	4824532.723	1450.65	300.23	0	129.9
724C3_S	14336109.4	4824529.644	1450.65	300.91	0	129.9
724HB_N	14336105.05	4824534.139	1450.94	120.84	0	90.1
724HB_S	14336103.01	4824530.706	1450.94	120.46	0	90.1

Cross-cut ID	X	Y	Z	Azimuth	Dip	Length
						(m)
726C3_N	14336217.89	4824577.658	1451.89	300.77	0	99.9
726C3_S	14336216.17	4824574.606	1451.89	300.31	0	99.9
726HB_N	14336212.22	4824581.095	1451.64	121.49	0	150.2
726HB_S	14336210.86	4824578.893	1451.64	121.34	0	150.2
728C3_N	14336327.59	4824631.992	1452.95	302.03	0	64.6
728C3_S	14336326.03	4824629.349	1452.95	302.63	0	64.6
728HB_N	14336324.83	4824628.888	1454.15	123.17	0	132
728HB_S	14336322.77	4824626.198	1454.15	123.21	0	132
730C3_N	14336443.35	4824682.846	1454.23	302.57	0	99.2
730C3_S	14336441.68	4824679.848	1454.23	300.13	0	99.2
730HB_N	14336438.94	4824682.899	1454.33	120.35	0	105.3
730HB_S	14336437.34	4824680.229	1454.33	120.56	0	105.3
732C3_N	14336551	4824732.48	1456.69	302.87	0	139.7
732C3_S	14336549.42	4824729.92	1456.69	302.48	0	139.7
732HB_N	14336549.9	4824736.822	1454.83	130.77	0	59
732HB_S	14336543.65	4824728.757	1454.83	121.33	0	59
734C3_N	14336609.27	4824812.935	1456.28	303.26	0	103.5
734HB_N	14336609.65	4824811.141	1455.99	123.73	0	48.3
734HB_S	14336606.65	4824805.816	1455.99	124.74	0	48.3
736C3_N	14336655.05	4824896.228	1456.89	302.03	0	56.7
736C3_S	14336654.03	4824894.634	1456.89	301.1	0	56.7
736HB_N	14336654.73	4824894.932	1456.76	118.98	0	30.2
736HB_S	14336653.47	4824892.234	1456.76	118.98	0	30.2
738C3_N	14336700.23	4824974.232	1457.48	302	0	57.7
738C3_S	14336697.91	4824970.433	1457.48	303.7	0	57.7
738HB_N	14336700.69	4824974.228	1457.51	119.56	0	30
738HB_S	14336700.98	4824970.219	1457.51	113.02	0	30
7MA12-14_W	14335728.43	4824090.808	1445.333	47.11	0	82
7MA25-26_W	14336146.11	4824550.659	1450.46	67.84	0	65
7MA28-29_W	14336356.93	4824645.516	1451.64	67.67	0	50

APPENDIX C TABLE 1 — JORC CODE 2012

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done, this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	The analytical results used to derive the Mineral Resource estimate at the Boguty Project were from 1969-1974 Former Soviet Union (FSU) program and 2014-2015 Behre Dolbear (BD) program. • The FSU dataset includes 19,943 m of trenches, 17,576 m of adits and the BD dataset includes 152 m of trenches, 362 m of adits and 5,075 m of drilling. • Surface trench and underground adit samples collected in FSU and BD programs were all continuous channel intervals of consistent width, depth and length of approximately 10 cm × 3 cm × 2 m, channeled either by chisels or saws. • In the FSU program, surface and underground diamond core drilling had been carried out. Mineralised drill core intervals were sampled in their entirety. The type of drill rigs and core diameters were not recorded. • Diamond core samples in the BD program were collected by sawing in half, length-wise, perpendicular to veins and were considered representative. Sample intervals were generally 2 m.
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	• In the FSU program, details of drilling techniques were not recorded. • In the BD program, drilling was conducted by PQ, HQ and NQ standard tube diamond core. Core was not oriented. Core boxes were marked.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximize sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• In the FSU program, the core recovery for the surface drilling ranged between 37% and 75% and recovery for underground drilling ranged between 31% and 96%. • In the BD program, diamond core recoveries were recorded during logging and the core recovery was >95%.

Criteria	JORC Code explanation	Commentary
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. • The total length and percentage of the relevant intersections logged.	• Logsheets in the FSU program were not preserved. • In the BD program, the cores were logged with geological and geotechnical information recorded, and photographed.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled.	In the FSU program: • The cores were sampled in full without cutting or sawing. • All samples were sent to Central Chemical Laboratory of the Regional Geology Department in South Kazakhstan. • Samples were first pulverised to 1 mm grain size. A 250 g portion of the samples was heated to 600°C in a porcelain crucible and mixed with hydrochloric acid to decompose elements that could interfere with the analytical results. • About 6.35% of pulp duplicates were inserted as internal quality control. • No blank or standard insertions were documented. In the BD program: • The primary drill samples were half-core cut (by diamond saw) perpendicular to the mineralised quartz veins and stockwork zones. • Pulp duplicates, blank and CRM standard samples were inserted at a rate of 1 in 30. • Field duplicates and coarse duplicates were also inserted in trench and adit samples. • Samples were labeled, bagged and shipped to ALS Kazlab LLP in Kazakhstan for sample preparation. • Samples were pulverised to 85% passing <75 um.

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. • Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	In the FSU program: • Samples were analyzed for WO_3 % using wet chemistry and colorimetry. • Internal duplicates showed good correlation. In the BD program: • All of the trench and adit samples as well as 60% of drill core samples were sent to ALS Chita, Russia, for principal analysis using the ME-ICP61 and ME-ICP81x procedures. Approximately 20% of the drill samples were sent to ALS Guangzhou, China (ALS GZ), and the remaining 20% were sent to Intertek Beijing (Intertek) using same sodium peroxide fusion with ICP-OES finish. • Quality control checks showed the data were of high standard. • Field and coarse duplicates showed scattering due to the nuggety nature of the mineralisation.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	In the BD program: • Round robin tests were performed among the three laboratories engaged (ALS Chita, ALS GZ and Intertek) and SGS Vostok Laboratory, Russia (SGS) served as the main external laboratory. A total of 182 pulp samples were re-assayed, and results showed good correlation. • SRK visited the site which involved examining the channels along underground adits and trenches cut, and drill hole collars in the FSU and BD programs. SRK also inspected the halved drill core of the BD program stored in a warehouse in Almaty. • SRK validated BD database by selecting 72 pulp samples to perform external checks. • A positive bias has been observed in the FSU data. To address this bias, the data have been adjusted using a regression formula derived from a comparison between the FSU and BD data. • A bias (high) was found in the FSU data when compared to the 257 BD trench and adit re-samples. • Further analysis was done by creating an intersection grade shell between the BD and FSU data and comparing the grades estimated by the two datasets. FSU data were still found biased high. • An obvious trend of elevation was found when comparing the Q-Q plot of the two datasets. A regression formula was generated in Excel and the corresponding elevated FSU grades were adjusted accordingly.

Criteria	JORC Code explanation	Commentary
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control.	• All data were projected to Pulkovo 1942/Gauss-Kruger Zone 14 coordinates. • In 2014, all adit portals, trenches and drill holes of the FSU and BD programs were surveyed using the GPS-RTK system. • Jiaxin provided the latest topographic map as of 30 June 2025.
Data spacing and distribution	• Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	• The general line spacing for the FSU program was approximately 50 m. Spacing in the center of the deposit is locally 25 m, and at the margin of mineralisation the spacing widens to 100 m. • The line spacing for the BD drilling program was approximately 100 m, with collars approximately 50 m apart. • The combined spacing of the FSU and BD programs is deemed adequate for estimation of Mineral Resources.
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• Drill core was not oriented. • Structural core measurements include alpha angle only.
Sample security	• The measures taken to ensure sample security.	• None of the FSU samples were preserved. • The halved drill cores and pulp rejects in the BD program were stored in a warehouse in Almaty.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• SRK undertook a review of the assay data of both the FSU and BD datasets, including standards, blanks and QAQC of laboratory reporting. The results appear to be reasonable.

Section 2 Reporting of Exploration Results

(Criteria listed in section 1 also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status . .	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	• The mining rights of the Project are covered by Subsoil Use Contract No. 4608-TPI and three subsequent addenda. The current owner of the Subsoil Use Contract is Zhetisu Volframy LLP (Zhetisu), which is held by Jiaxin's subsidiaries. • The mining rights cover an area of 1.16 km^2 and permit the exploitation of the resource to a maximum depth of 300 m below the surface. The mining rights were issued by the MID (a predecessor of the MIC). The licence is valid from 2 June 2015, to 2 June 2040, for a period of 25 years.
Exploration done by other parties.	• Acknowledgment and appraisal of exploration by other parties.	• Numerous small-scale exploration works had been carried out by different parties since the discovery of Boguty deposit in 1942. • Two systematic exploration programs were carried out in 1969-1974 by Geological Survey of South Kazakhstan (the FSU program) and in 2014-2015 by Behre Dolbear (the BD program).
Geology	• Deposit type, geological setting and style of mineralisation.	• The deposit is hosted in quartz-scheelite stockwork zones filling the fractures within metasediments. • The hydrothermal fluid contributing to the mineralisation is associated with granitic intrusions. • The overall strike of the deposit is about ~300°.
Drill hole Information .	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: – easting and northing of the drill hole collar – elevation or RL (Reduced Level — elevation above sea level in metres) of the drill hole collar – dip and azimuth of the hole – downhole length and interception depth – hole length. • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	• In the FSD program, both surface and underground drill holes had poor recoveries and their assay data were used to delineate the orebody but were not used for estimation of Mineral Resources. • The BD program contains 18 drill holes with depths range between 33.9 m and 500 m, azimuth at 121.5° (one reversed at 301.5°) and dips between 45° and 85°. • All drill hole, trench and adit information is appended to this Report.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• Data aggregation methods are not applicable for the Mineral Resource estimate reported here.
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	• The stockwork veins steeply dip at ~80°. The intersections from adits and trenches therefore approximately correspond to true width mineralisation. • The BD drill holes dip at an acute angle relative to the mineralisation.
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• See ITR Sections 4 and 5.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• Individual intersections are not reported.

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples — size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• In the FSU program, a total of 195 samples and six bulk samples were described for obtaining the average density value for the mineralised sandstone and sandstone-shale unit. An average specific gravity value of 2.74 t/m^3 was used for the sediment that hosts the mineralisation. • In the BD program, samples for density measurement were collected at 10 m intervals of the drill hole. These samples were measured by the water immersion method. In total, 403 samples were collected from the sandstone and sandstone-shale unit that hosts the mineralisation, and 43 samples were collected from the barren units. • 4 holes for geotechnical and hydrological purposes were drilled in 2022.
Further work	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• No further exploration programs of infill or extension drilling are planned. • Grade control, including blast hole sampling, should be conducted regularly. • Production reconciliation should also be undertaken.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	• SRK spot-checked the database against FSU tables and maps, and against the BD assay certificates, and found no flaws in the data. • During the process of uploading the database into SRK's software (Leapfrog), various checks for internal inconsistencies (such as overlapping intervals and missing collars) are automatically performed. Visual checks of the different generations and types of sampling data against each other also ensure database integrity.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• The authors visited the Project in July 2018, September 2022, November 2022, August 2023, July 2024, March, June and August 2025.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• Geological domains were modeled based on digitising contacts from sections and maps, and then constructing a wireframe from the polylines. • The mineralisation domain was modeled using a grade shell. • The geological interpretation is considered robust; there is sufficient drilling, surface trenching and adit sampling to provide a tight control on the geological interpretation. • Interpreted anisotropy of mineralisation continuity is used to guide the orientation set for variogram model and search neighbourhood.
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• The mineralised stockwork zone extends approximately 2,000 m in a northeast direction, with a lateral extent of 400 m towards the east. It dips subvertically northwest, reaching a maximum depth of 500 m.

Criteria	JORC Code explanation	Commentary
Estimation and modeling techniques.	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen, include a description of computer software and parameters used. • The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. • The assumptions made regarding recovery of by-products. • Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulfur for acid mine drainage characterization). • In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. • Any assumptions behind modeling of selective mining units. • Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource estimates. • Discussion of basis for using or not using grade cutting or capping. • The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• GKZ had prepared a Mineral Resource estimate for the FSU program. Numerous Chinese institutes had reported a Mineral Resource estimate using data from both the FSU and BD programs. None of these estimates were prepared under the guidelines of the JORC Code. • BD reported a Mineral Resource estimate under JORC Code guidelines in 2015. SRK has reviewed the estimate and noted it included large volumes of waste rocks in the orebody domain. The resultant Mineral Resource estimate has a high ore tonnage but low tungsten grade. The BD Mineral Resource estimate is not adopted in current Project. • SRK's 3D block modeling and estimation was undertaken in Leapfrog Edge software (version 2023.1). • The Resources Domain for the Project was built using radial basis function (RBF) in Leapfrog Edge software. A 0.08% WO_3 threshold was used to define the mineralised intervals and high grades were capped at 1.2% WO_3. • Block grades were interpolated using the Ordinary Kriging (OK) method. Quantitative Kriging Neighbourhood Analysis (QKNA) was used to optimize the estimation neighbourhood. During the grade estimation, dynamitic ellipsoid and multiple search runs are also applied. • A discretisation grid of 3 × 3 × 2 has been used within each block during the estimation. • SRK conducted visual validation of the longitudinal views and cross section view of the drill holes or channel grades and block model grades, which demonstrated good correlation between local block estimations and nearby samples, without excessive smoothing in the block model.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• Tonnages are estimated on a dry basis.

Criteria	JORC Code explanation	Commentary
Cut-off parameters . . .	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• A cut-off grade of 0.05% WO_3 is adopted based on assumptions of: – Mining cost at 12 RMB/t – Processing cost at 55 RMB/t – General & Administration cost at 19 RMB/t – Processing recovery at 83% (80% in 2025 during the ramp-up period) – 65% W concentrate price at 143,000 RMB/t. • These parameters are based on the preliminary design which was further updated by the Company. The commodity price forecast is based on a market study undertaken by an independent market research consultancy.
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	• Open pit mining is assumed. • The block size, in particular the z dimension, has taken the proposed bench height into account.
Metallurgical factors or assumptions . . .	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• The mineralisation is assumed to be principally scheelite. • Metallurgical testwork has shown that a scheelite concentrate can be concentrated through a flotation flowsheet, with a reasonable recovery. • Based on various metallurgical testwork conducted, an 83% processing recovery has been assumed (80% in 2025 during the ramp-up period).

Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions . . .	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• An EIA has been approved by the relevant authority.
Bulk density	• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. • The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• In the FSU program, a total of 195 samples and six bulk samples were described for obtaining the average density value for the mineralised sandstone and sandstone-shale unit. An average specific gravity value of 2.74 t/m^3 was used for the sediment that that hosts the mineralisation. • In the BD program, samples for density measurement were collected at 10 m intervals of the drill hole. These samples were measured by the water immersion method. In total, 403 samples were collected from the sandstone and sandstone-shale unit that hosts the mineralisation, and 43 samples were collected from the barren units.

Criteria	JORC Code explanation	Commentary
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• SRK considered the following factors in Mineral Resource classification: – Geological continuity and reliability of interpretation – Sample support and exploration workings density – Quality of the historical exploration campaign data and the validation results – Grade continuity and variography – Ordinary Kriging statistics. • The Measured classification category is not applied, due to the adjustment made to the FSU samples, which represent most of the database. • Indicated Mineral Resource is classified in the area defined by surface trench, adit and BD drill holes. • Inferred Mineral Resource is classified in the area defined only by surface trenches, and the deeper extension of Adit 7 and BD drill holes.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• No external audits or reviews of the Mineral Resource have been undertaken. • SRK has carried out an internal peer review on the Mineral Resource estimate.
Discussion of relative accuracy/confidence	• Where appropriate, a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. • The Mineral Resource Statement reflects the global estimates of in situ tonnes and grade. • Construction is largely complete, and trial production commenced in November 2024.

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in section 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. • Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	• The Ore Reserves estimate was based on the Mineral Resource model developed by the SRK and excluded Inferred Mineral Resources. • The Ore Reserves are reported inclusive of Mineral Resources. • The Ore Reserve estimate is derived from pit optimization and pit design, mining dilution and ore loss. The reference point for Ore Reserve estimates is the ROM pad before crusher.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken, indicate why this is the case.	• SRK consultants visited the site in July 2018, November 2022 and August, September, November 2023, July 2024, March, June and August 2025.
Study status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. • The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	• Four studies have been completed for the Project: – Feasibility Study on the Boguty tungsten mine, Kazakhstan with 10,000 tpd mining capacity, compiled by Hunan Research Institute of Non-Ferrous Metals (HRI) on December 2017 (2017 FS) – Feasibility Study on the Boguty tungsten mining and engineering project, Kazakhstan with 15,000 tpd mining capacity (10,000 tpd in first two years), compiled by ENFI on August 2019 (2019 FS) – Preliminary Design on the Boguty tungsten mining and engineering project, Kazakhstan with 15,000 tpd mining capacity (10,000 tpd in first two years), compiled by ENFI on June 2020 (Preliminary Design) – Hydro-geotechnical Pre-feasibility study for Boguty Tungsten Project, compiled by SRK Almaty on August 2023 (GT PFS). • After reviewing the Preliminary Design, SRK considers the Preliminary Design meets the international PFS level and could form the basis for conversion of Mineral Resources to Ore Reserves. • The verified Modifying Factors of the Preliminary Design and the additional geotechnical and hydrogeological studies, as well as the Company-provided construction progress and schedule form the basis of the pit optimization, mine schedule and subsequent declaration of Ore Reserve.

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	• The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimization or by preliminary or detailed design). • The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. • The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling. • The major assumptions made and Mineral Resource model used for pit and stope optimization (if appropriate). • The mining dilution factors used. • The mining recovery factors used. • Any minimum mining widths used. • The manner in which Inferred Mineral Resources are used in mining studies and the sensitivity of the outcome to their inclusion. • The infrastructure requirements of the selected mining methods.	• The marginal cut-off grade (MCOG) is applied for feed ore, within the pit design, to define ore or waste. – The MCOG is estimated as 0.06% total WO_3 grade. – The cost of RMB55/t feed is based on budget updates for the second stage of processing plant operation (4.95 Mtpa feed). The General & Administration cost is RMB19/t. – The price of the concentrate based on the forecast from F&S. The price is RMB110,000/t standard tungsten concentrate (65% WO_3), excluding VAT. – The processing recovery is 79%. – Resource tax is 7.8% of revenue. – Sales expense is 0.8% of revenue. • The open pit mining with a conventional drill and blast, shovel and truck method is employed for the mine. • The conversion of Mineral Resources to Ore Reserves is based on pit optimization which considers Indicated Mineral Resources only (there is no Measured Mineral Resource for the Project). • The main input for pit optimization is the MCOG estimate, with the following additional input: – Mining cost is RMB32/m^3 of rock material. • The pit design is based on the optimization shell as the revenue factor = 1.0, and uses the parameters proposed in the GT PFS: – Bench height is 20 m. – Bench face angle is 65°-70°. – Catch berm is 6.5-10.5 m wide. – The ramp is 18 m wide for dual lane; 10 m for single lane. – The road gradient is 8% (1V:12.5H). • The LOM plan is based on the schedule strategy proposed by the Preliminary Design, which is mining from the top downwards with two benches operated simultaneously, at a peak rock extraction capacity of 18.4 Mtpa, to achieve a feed ore capacity of 4.95 Mtpa. The LOM is 15 years. The average grade is 0.206% WO_3 and the stripping ratio is 1.53.

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. • Whether the metallurgical process is well-tested technology or novel in nature. • The nature, amount and representativeness of metallurgical testwork undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. • Any assumptions or allowances made for deleterious elements. • The existence of any bulk sample or pilot scale testwork and the degree to which such samples are considered representative of the orebody as a whole. • For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	• SRK considers the two-stage crushing-ore sorting-tertiary crushing-grinding circuit, along with a flotation concentrator using a single-stage rougher, three-stage scavenger and three-stage cleaner process, an appropriate flowsheet to process the ore. • An industrial scale ore-sorting test will also be undertaken. • The metallurgical samples were taken from surface and adits. Based on the distribution of sampling locations and grades, SRK considers the test samples are representative. • No assumptions for deleterious elements have been made. • The samples subject to pilot-scale testwork are considered representative.
Environmental	• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterization and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	• Environmental Impact Assessments (EIAs) for the open pit, processing plant and TSF were completed and approved by the relevant government authorities. No waste rock characterization has been completed by the Company.
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labor, accommodation; or the ease with which the infrastructure can be provided, or accessed.	• The key infrastructure includes power and water supplies. The installation of a 7 km-long overhead line, connecting to the existing 110 kV line and waterpipe connecting to the water taking point in Charyn River. • The Project is connected to the major A3 paved highway through a 3 km-long gravel road.

Criteria	JORC Code explanation	Commentary
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study. • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements. • The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products. • The source of exchange rates used in the study. • Derivation of transportation charges. • The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. • The allowances made for royalties payable, both government and private.	• The construction of the Project was largely completed in late 2024. The capital cost estimate is based on the Preliminary Design. • The operating cost estimate is based on the Preliminary Design and was recently updated by the Company's financial team. • The commodity price forecast is provided by F&S, an independent market research company. • A fixed exchange rate of US$/RMB of 7.08 has been applied. • The transportation charges from the Project to the Khorgos border crossing with China is based on research by the Company's financial team. • 7.8% government resource tax on pre-VAT revenue.
Revenue factors	• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	• The head grade is based on the latest Mineral Resource estimate by SRK. • The ore loss and dilution are based on the Preliminary Design. • The commodity price is based on the forecast by F&S, an independent market research company. • A fixed exchange rate of US$/RMB of 7.08 has been applied.
Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• The demand and supply for the tungsten concentrate and other market factors are based on the research by F&S, an independent market research company. • The market research was completed by F&S. • SRK sighted sales agreements between the Company and a Chinese customer. The agreements state the pricing mechanism and other conditions. • F&S has confirmed that entering into a memorandum of understanding at early stage of the development of tungsten mine is in line with the industry norm.

Criteria	JORC Code explanation	Commentary
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	• The capital and operating costs are based on the Preliminary Design and are recently updated by the Company's financial team. The mining schedule is based on the latest schedule by SRK. The target processing plant throughput is based on the latest Company forecast. • The estimated inflation is based on the forecast by F&S. • The range of discount rates applied is considered by SRK as appropriate. • A sensitivity analysis has been performed against various key parameters and a positive NPV was yielded.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• The social requirement is bounded by the Subsoil Use Contract signed between Zhetisu and the government. • In 2014, public hearing was conducted for the EIA of the Project with the key stakeholders. • A memorandum between Zhetisu and the Akimat Yenbekshikazakh district was signed in 2021, setting out the Zhetisu obligations. • Between 2021 and 2022, Zhetisu invested KZT161M to meet the needs and requirements of the Sogeti rural district and its resident.
Other	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • Any identified material naturally occurring risks. • The status of material legal agreements and marketing arrangements. • The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	• No material risks have been identified. • The Project area is a seismic active area with the peak ground acceleration, ranging from 0.415g to 0.598 g. SRK understands that all design and construction of the Project has taken into account of the potential earthquake risk.

Criteria	JORC Code explanation	Commentary
Classification	• The basis for the classification of the Ore Reserves into varying confidence categories. • Whether the result appropriately reflects the Competent Person's view of the deposit. • The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	• Applying the Modifying Factor, all economically mineable parts of the Indicated Mineral Resources within the open pit design and the current boundaries of the mining licence, including dilution and ore loss have been classified as Probable. • The Competent Person considers the classification is appropriate. • No Measured Resource has been converted to Probable Ore Reserve.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	• An internal peer review has been completed for the Ore Reserve estimate.
Discussion of relative accuracy/confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. • It is recognized that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• The Ore Reserve is based on the verified Modifying Factors described in the Preliminary Design; the latest geotechnical and hydrogeological studies; the latest SRK's Mineral Resource estimate and the capital and operating costs updated by the Company's financial team. The Ore Reserve is within the boundaries of the mining licence. • There are no unforeseen Modifying Factors at the time of this statement that will have material impact on the Ore Reserve estimate. • Where practical and possible, current industry practises have been used to quantify estimation made.