Mt Carbine Tungsten-
2023 JORC Ore Reserves

May 2023

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Contributors

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Distribution

Company	**Attention**	**Hard Copy**	**Electronic Copy**
EQ Resources Limited	**Kevin MacNeill**	**No**	**Yes**

PURPOSE OF REPORT

Optimal Mining Solutions Pty Ltd have prepared a report on the Ore Reserves of the Mt Carbine Project for the Directors of EQ Resources. The Ore Reserves are estimated as at May 1st 2023.

The purpose of the report is to provide for the company, an objective assessment and estimate of the Ore Reserves contained within the Mt Carbine Project, that have been prepared in accordance with the requirements of the 2012 edition of the Australian Code for Reporting of Mineral Resources and Ore Reserves.

COMPETENT PERSON STATEMENT

This Reserves Estimate for the Mt Carbine Project has been prepared by a team of consultants under the guidance of Mr Tony O'Connell.

The Mt Carbine Project consists of:

- The Mt Carbine low-grade stockpile (LGS); and
- The Mt Carbine open pit.

The estimates of Open Cut Ore Reserves for the Mt Carbine Project as at 1st May 2023 presented in this report have been prepared in accordance with the requirements of the 2012 edition of the Australasian Code for Reporting of Mineral Resources and Ore Reserves (2012 JORC Code).

Mr O'Connell is a qualified Mining Engineer, (BE (Mining), University of Queensland), has over 24 years of experience in the global mining industry and is a member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr O'Connell has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and the activity being undertaken to qualify as a Competent Person as defined in the JORC Code. Mr O'Connell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Neither Mr O'Connell or Optimal Mining Solutions Pty Ltd has any material interest or entitlement, direct or indirect, in the securities of EQ Resources Limited or any associated companies. Fees for the preparation of this report are on a time and materials basis only.

Mr O'Connell consents to the release of the report, in the form and context in which it appears.

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EXECUTIVE SUMMARY

This document forms the supporting documentation for the Ore Reserve estimate, prepared according to *The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, December 2012*, as at 1st May 2023 for the Mt Carbine Project. The Mt Carbine Project consists of:

- The Mt Carbine low-grade stockpile (LGS); and
- The Mt Carbine open pit.

Optimal Mining Solutions Pty Ltd (Optimal Mining) has been engaged by EQ Resources Pty Ltd (EQR) to prepare a Statement of the Ore Reserves for its fully owned Mt Carbine Tungsten Project (Mt. Carbine).

Mt Carbine is an operating tungsten mine and rock quarry located at the northern end of the Atherton Tableland approximately 130 km by sealed highway from the closest major centre of Cairns. EQR acquired the mine and associated quarry in June 2019 and has been operating the mine and quarry concurrently, with the mine currently processing tailings and low-grade ore stockpiles located on the site that are remnant from previous operations on the site. The mine is well supported by existing services and infrastructure.

The current plan for Mt Carbine is to recommence the old open pit, which was shut in the late 1980's, whilst continuing to process the LGS. The open pit is forecast to be developed at approximately 5Mtpa with ore delivery to the crusher at a rate of 1Mtpa including the rehandling of the LGS.

The processing plant generates a 50% WO_3 concentrate which will be sold on the open market. Mt Carbine currently has off-take agreements for the $W0_3$ concentrate which it currently produces. The concentrate will be sold into a market with ongoing strong demand.

A Mineral Resource Estimate compliant with the 2012 JORC Code has been prepared by Mr. Tony Bainbridge, Chief Geologist for EQ Resources Pty Ltd. The Resources are split into two sections, one for the LGS and one for the open pit as summarised in the table below.

Table 1: Mt Carbine Resource Estimate as at 4th April 2023

OREBODY	RESOURCE CLASSIFICATION	TONNES (MT)	GRADE (WO_3 %)	WO_3 (MTU)
Low-Grade Stockpile	Indicated	10.126	0.075	759,450
In Situ	Indicated	18.06	0.30	5,405,901
	Inferred	10.68	0.30	3,217,311
	Total	*28.74*	*0.30*	*8,623,212*
All	**Total**	**38.87**		**9,382,662**

The Ore Reserve was estimated as of 1st May 2023 by Optimal Mining. The Competent Person for the Ore Reserve Estimate is Mr Tony O'Connell of Optimal Mining.

Open cut Ore Reserves have been estimated by applying modifying factors to the Mineral Resource. The modifying factors include practical pit limits which were based on the current economic limits, determined using indicative operating costs, metallurgical parameters, geotechnical constraints and projected revenue. Other modifying factors included mining losses, mining recovery and dilution factors. An economic evaluation of the mine plan and schedule was completed as part of the estimation process, with the project generating positive cashflows throughout the life of the operation. It should be noted that no revenue was accounted for from the current quarrying services as part of the economic evaluation.

All the Reserves are classified into their respective category based on the level of detail completed in the mine plan and the level of confidence in the Resource estimate. In the categorisation of Reserves, all Indicated Resources have been classified as Probable Reserve. There are no Proved Ore Reserves. No Inferred Resources have been included in the Ore Reserve estimate.

A 0.05% $W0_3$ cut-off has been applied in the open pit resource model, however once loss and dilution is applied the minimum open pit ore grade mined is 0.08% WO_3. The average ROM grade of the open pit Ore Reserve is 0.28%. The LGS has been classified as a large homogenous orebody which contains an average of 0.075% WO_3.

The Ore Reserves for the low-grade stockpile and open pit are summarised in the following tables.

Table 2: Mt Carbine Low Grade Stockpile Ore Reserve Estimate 1st May 2023

RESERVE CATEGORY	ROM TONNES (Mt)	WO_3 %
LGS - Proved	-	-
LGS - Probable	9.77	0.075%
LGS - Total	**9.77**	**0.075%**

Table 3: Mt Carbine Open Pit Ore Reserve Estimate 1st May 2023

RESERVE CATEGORY	ROM TONNES (Mt)	WO_3 %
Open Pit - Proved	-	-
Open Pit - Probable	5.93	0.28%
Open Pit - Total	**5.93**	**0.28%**

The Resources are reported inclusive of the Ore Reserves. The Ore Reserves have been estimated using the same geological model as the Mineral Resource Estimate.

The open pit Ore Reserves are accompanied by 17.3Mt of waste which provides an overall ROM strip ratio of 2.9:1 t/t.

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1. INTRODUCTION

1.1 Process

The process adopted for completing the 2023 Mt Carbine Project Ore Reserve Estimate is described below:

- Geological models have been prepared by EQR, with a Mineral Resource Estimate updated and declared in April 2023 for both the LGS and open-pit.
- A preliminary pit optimisation was undertaken as a guide to the economic mining limits and subsequent detailed pit designs for the open pit.
- The design stage outputs were 3-dimensional solids in the Deswik mine planning package. The mine designs included pit wall batters, berm offsets, access ramps and subdivisions into mining benches for truck and shovel.
- The insitu solids were interrogated against the latest geological model, including the modelled qualities for all ore solids.
- Minimum mining widths, ore losses and dilution factors were applied to the ore solids to calculate ROM values.
- Concentrate with 50% WO_3, for both the LGS and open pit, were calculated for all ore solids based on the metallurgical factors compiled from historical performance at Mt Carbine.
- The quantities and qualities for each solid were imported into Spry mine scheduling software for scheduling.
- Unit cost values were applied to all mining and processing processes to calculate the total cost for each tonne of concentrate.
- Forecast sale prices were applied to the concentrate produced to calculate the overall revenue generated.
- Monthly and annual cash flows were calculated based on the scheduled operating costs, forecast capital costs and revenue generated to confirm positive cashflows for the life of mine.
- The Ore Reserves have been categorised as Probable based on the Ore Resource confidence, the level of detail in the mine planning and considering all the modifying factors to quantify the risks surrounding the project.
- The low-grade stockpile Ore Reserve is based on the depletion of the previous estimate using the latest production figures from the stockpile reclamation operations.
- Checks of all quantities and qualities quoted in this report have been undertaken and all work peer reviewed internally by Optimal Mining.

1.2 Location

Mt Carbine is an operating tungsten mine and rock quarry located 130 km north-west of the city of Cairns in Far North Queensland, Australia.

The mine is at the northern end of the Atherton Tableland approximately two hours (130 km) by sealed highway from the port and major centre of Cairns and 45 minutes from Port Douglas. There is a small historic hotel and caravan park adjacent to the mine site and a small town. The mine location is shown in Figure 1-1.

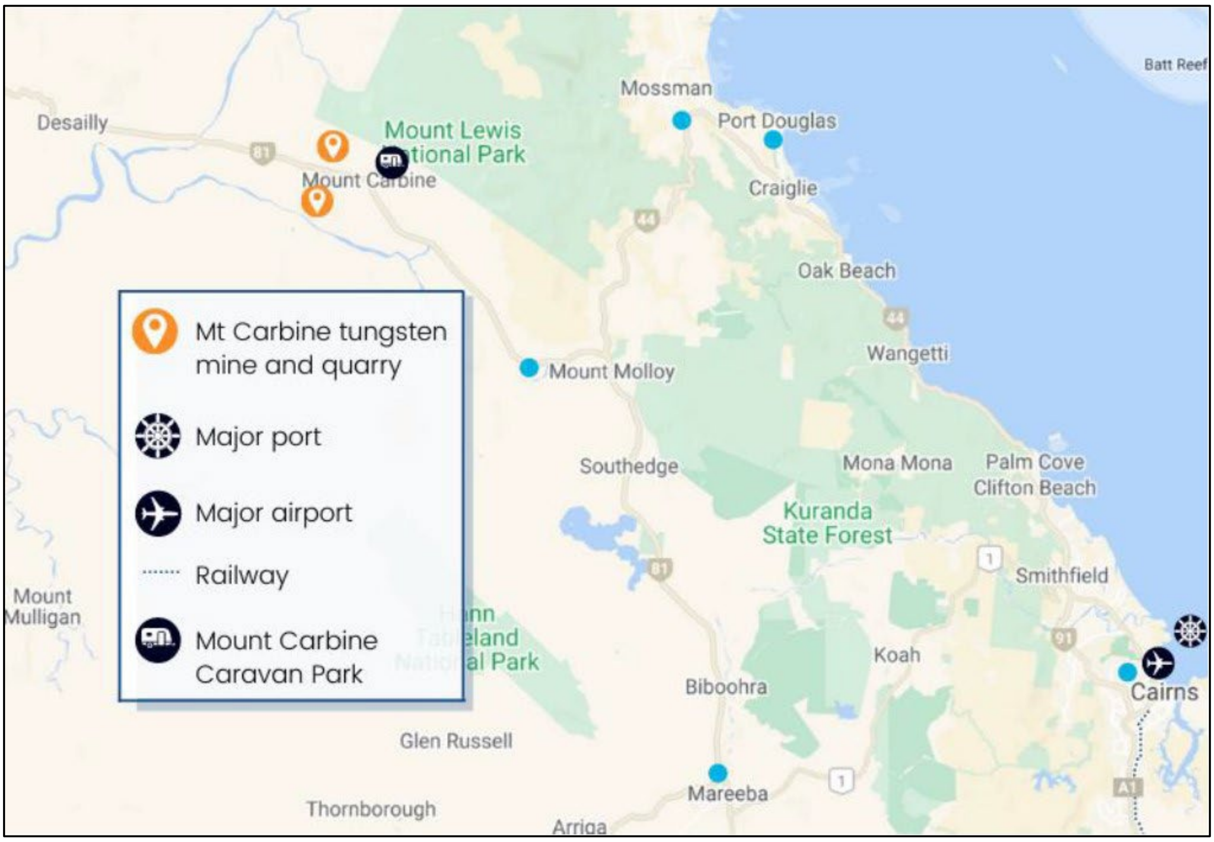

Figure 1-1: Mt Carbine Location

1.3 History

Wolframite was first discovered on the slopes of Carbine Hill in the 1890s and a number of small-scale mines operated in the vicinity prior to 1920. During this period, the town of Mount Carbine had a population of 400. At the end of World War One, the price of tungsten collapsed, and the township was virtually deserted until the 1970s when Queensland Wolfram Pty Ltd commenced mining by means of an open pit mine. In 1973 Roche Brothers Mining commenced developments of a mine on the project site which became a major world tungsten producer. Mining continued until 1986 when declining prices again forced closure. The mine was placed on a care and maintenance basis until 1991 when the plant and equipment was sold. Since 1987 the mine site has been operated as a quarry by Mt Carbine Quarries Pty Ltd. Increases in tungsten prices prompted Carbine Tungsten Limited (previously known as Icon Resources Limited) to assess mining and reprocessing of tailings at the site.

The contemporary mining operations started in 2012 and included a tailings re-processing pilot plant immediately north of the tailings storage facility. The contemporary mining activities were placed into care and maintenance in May 2016. The quarry repurposes waste rock from stockpiles and tailings on-site and has not significantly altered the site. In January 2020, the project to recover tungsten units from historical low grade material stockpile and tailings materials, that comprised the quarry inventory, commenced.

1.4 Tenure

1.4.1 Land Ownership and Mineral Rights

The Mt Carbine mining area is located within two Mining Leases, ML4867 and ML4919 totalling approximately 366 hectares. In June 2019, EQ Resources Pty Ltd acquired Mt Carbine Quarries Pty Ltd and has 100% ownership of the two leases and surrounding exploration permits.

Mt Carbine currently operates as a mine and quarry. The current approvals allow for the extraction, crushing and screening of up to 1Mtpa of material for use as quarry product.

A map of the EQ Resources tenements at Mt Carbine are shown in Figure 1-2.

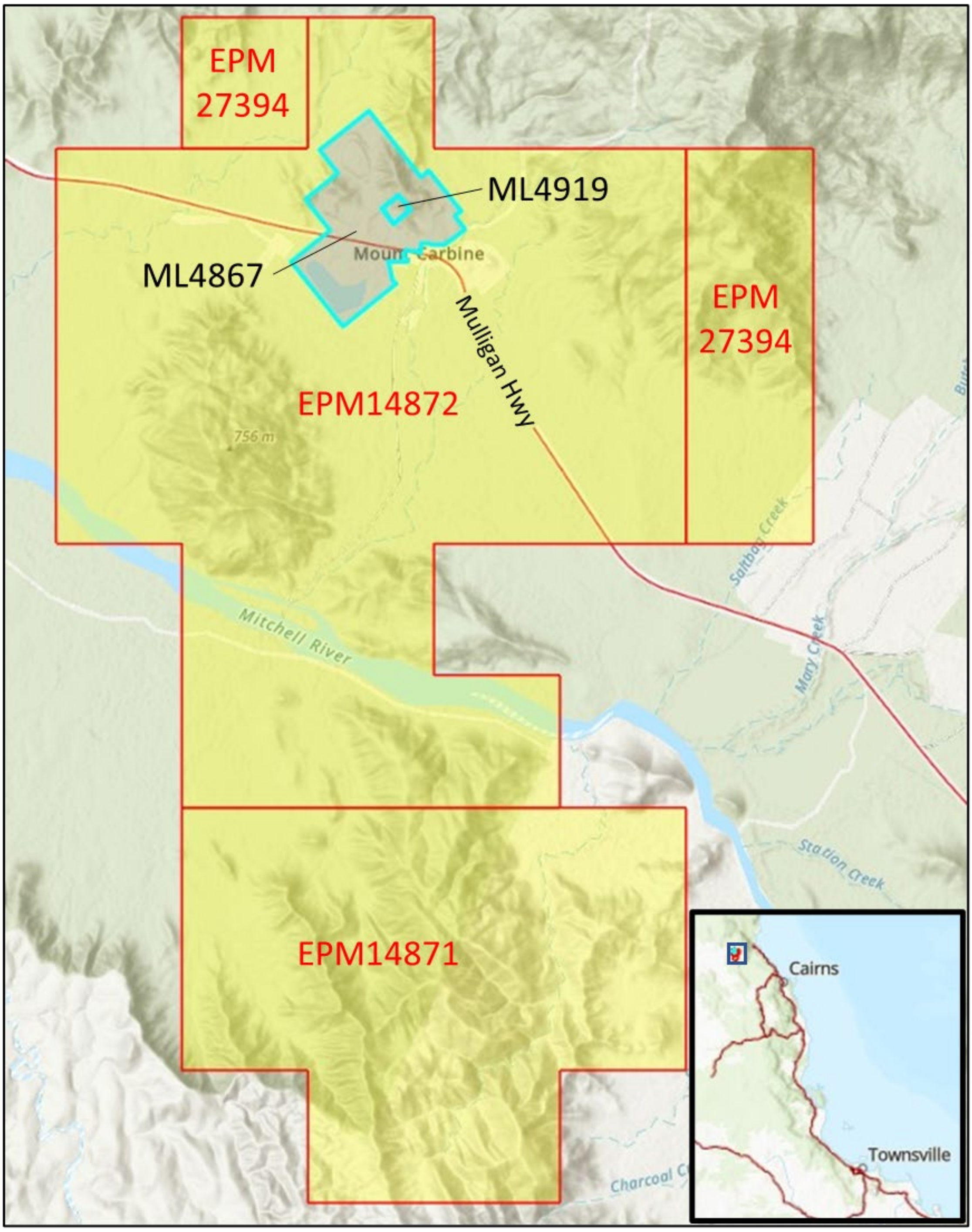

Figure 1-2: Mt Carbine Tenements

1.5 Site Infrastructure

Mt Carbine is an operational site well serviced by existing on site infrastructure to support the mining and quarrying operations.

1.5.1 Facilities

Mt Carbine is currently fitted with site offices and facilities that are being utilised by operations personnel. The onsite facilities include:

- Mineral Processing Facilities
- Office buildings
- Workshops
- Fuel Farm
- Laboratory
- Ablutions facilities
- Car park
- Crib areas
- Power
- Water
- Phone and internet

1.5.2 Site Access

The access to the mine and quarry is by a well maintained dirt road directly off the sealed Mulligan Highway. Signage, gates and the necessary parking facilities are in place for the acceptance of staff and site visitors. The site access road is shown in Figure 1-3.

The access to the processing plant is from an access road on the southern side of the Mulligan Highway. The processing plant also has the requisite existing infrastructure to manage the access of vehicles and personnel to the site.

Figure 1-3: Mt Carbine Access Road

1.5.3 Site Roads

The site has well maintained light and heavy vehicle roads within the mining and quarrying operational areas. Site has developed a traffic management plan which make use of the existing site roads in a loop configuration minimising light vehicle and heavy vehicle interactions.

The standard site haul road is shown in Figure 1-4.

Figure 1-4: Mt Carbine Site Haul Road

1.6 Approvals

1.6.1 Current Environmental Status

The surrounding land use is rural-urban dominated by the nearby Mount Carbine township, low-intensity cattle grazing, mining and exploration, and conservation (the Brooklyn Nature Refuge1). The background land tenure (Lot 13 on SP254833) is Brooklyn Nature Refuge, which is held by the Australian Wildlife Conservancy as a rolling term lease – pastoral (Title Reference 17664140); a special condition of this lease is to allow quarry material to be removed.

Environmental values (EVs) associated with the project include air, acoustic, water, wetlands, groundwater, and land.

1.6.1.1 Air

The air quality EV for the Mount Carbine area is described as having an airshed that is typical of a rural area impacted by agricultural activities, mining and exploration activities, and transport infrastructure activities on sealed and unsealed roads.

The closest nearby sensitive receptors are the Mt Carbine Hotel and Mt Carbine Roadhouse, approximately 700 m east of the project site. Other nearby sensitive receptors located farther eastward are five residences off Mulligan Highway and the Mount Carbine township area.

1.6.1.2 Acoustic

The noise levels in the Mount Carbine area are typical for a small rural area, with traffic being the main source of noise during day and night. Light vehicles, cattle trucks, and semi-trailers use the Mulligan Highway, which passes through the project area, on a daily basis. The quarry and mining operations have produced noise from on-site crushing, truck and loader movements, light vehicle traffic, and mine processing plant for many years. Sensitive locations for noise and vibration are the Mt Carbine Hotel and Mt Carbine Roadhouse, approximately 700 m east of the project site, five residences off the Mulligan Highway and the Mount Carbine township area.

1.6.1.3 Water (surface water, groundwater and wetlands)

The project area is within the Manganese Creek and Holmes Creek catchments, which drain to the Mitchell River approximately 5 km downstream. Manganese Creek and Holmes Creek are intermittent watercourses that are dry for most of the year.

EVs are not nominated under the Environmental Protection (Water and Wetland Biodiversity) Policy 2019 for the part of the Mitchell River basin relevant to the project receiving environment.

There are no wetlands of national or international significance mapped in the project site or the receiving environment (DES 2021a). There are no High Ecological Value Waters (watercourses), High Ecological Value Waters (wetlands) or Wetlands of High Ecological Significance mapped in the project site or the receiving environment (DES 2021b).

1.6.2 Current Approvals

The land relevant to the project site is used for quarry operations and mining activities as per the respective licenses (EA EPPR00438313, dated 16th March 2021 for the quarry and EA EPML00956913, dated 1st March 2023 for the mine).

The Mineral and Energy Resources (Financial Provisioning) Act 2018 came into force on 1 April 2019. This act includes provisions that replaced the financial assurance arrangements for resource activities under the Environmental Protection Act 1994 (EP Act) with the requirement to provide either surety or a percentage contribution to the Financial Provisioning Scheme (based on the Estimated Rehabilitation Cost (ERC) for the project). DES has decided the ERC amount for EA EPML00956913 to be $1,048,630.49 for the period 14th December 2022 to 14th December 2023.

Notifiable activities are defined in Schedule 3 of the EP Act. No notifiable activities are planned to occur as part of the quarry activities under EA EPPR00438313. Lot 13 on Plan SP254833 is included on the Environmental Management Register (EMR) as the site has been subject to the following notifications associated with the mining activity undertaken pursuant to EA EPML00956913: Mine Waste, Mineral Processing, Petroleum Product or Oil Storage.

Environmentally relevant activities (ERAs) are defined in Environmental Protection Regulation 2019 (EP Reg). The ERAs are licensed under EA EPPR00438313 for the quarry activity and under EA EPML00956913 for the mine activity.

With regards to the requirement for an End of Waste (EOW) code for the Mt Carbine development, the regulator (i.e. DES) has determined that that an EOW approval or code is not required.

1.6.3 Mining Leases

The Mt Carbine project is located on two leases: ML4867 and ML4919. The details of both mining leases are shown in Table 1.1.

Table 1-1– Mt Carbine Leases

Tenure Number	ML 4867	ML 4919
Permit type	Mining Lease	Mining Lease
Permit status	Granted	Granted
Lodge date	23 December 1971	30 November 1972
Approve date	25 July 1974	22 August 1974
Expiry date	31 July 2041	31 August 2041
Authorised holder name	MT. CARBINE QUARRIES PTY. LTD.	MT. CARBINE QUARRIES PTY. LTD.
Mineral	CU, FE, MO, SN, W, MT, Q, SI	CU, PB, SN, W, ZN
Permit sub-type	Mineral	Mineral
Native Title category	Granted before 1 January 1994	Granted before 1 January 1994
Area (ha)	358.5	7.891
Permit name	MT CARBINE NO 1	NEW DCL
Permit number other	4867	4919
Permit type abbreviation	ML	ML
Previous permit number	ML2523MARE	ML2888MARE
Permit ID	108011	108023

Both mining leases have recently been approved for additional 19-year terms with their expiry dates extended to 2041.

1.7 Topography and Land Use

The topography around the Mt Carbine project is dominated by the surrounding high hilly and mountainous areas with very steep slopes. The mine and processing plant areas are mostly situated on a relatively flat alluvial plain.

The land has been disturbed by historical mining activities which have been active since the late 1800's. Land use within the project area is licensed for mining and quarrying. The immediate surrounding land use is conservation (Brooklyn Nature

Refuge), with low intensity beef cattle grazing, mining and exploration, and the township of Mount Carbine.

The Mt Carbine agricultural land evaluation classification is Class 4 on the lower/flatter areas and Class 5 on the steeper/higher areas.

2. GEOLOGY

2.1 Regional Geology

Mt Carbine is located within the Siluro-Devonian Hodgkinson sedimentary province. The thick sedimentary sequence was subjected to complex folding and regional metamorphism before, and during, extensive granitic intrusions in the Carboniferous and Permian.

Within the permit, the north-northwest trending Hodgkinson Formation turbidite and siltstone sequence is intruded by the Mareeba Granite dated at 277 My, and the Mt Alto Granite dated at 271±5 My. Contact metamorphic aureoles marked by the formation of cordierite Hornfels that surround the granite intrusive, and numerous acid intermediate dykes intrude the metasediments. In the western portion of the tenement, a prominent metabasaltic- chert ridge is a significant stratigraphic component of the Hodgkinson Formation.

Fluids from the large granite batholith (>400 km2) were the source of hydrothermal fluids for mineral deposition around the margins of the intrusive. The Mt Carbine deposit is a direct result of these fluids travelling out from the granite into surrounding structured ground.

There appears to be a preference for the higher grade tungsten mineralisation to be located on failed fold hinges, associated with the isoclinal folding of the Hodkinson Formation. These locations have the highest structural deformation and have allowed these fluids to penetrate into structures and deposit quartz and minerals. The granites associated with Mt Carbine are 'S' Type Granites, which can mobilise tin, tungsten, molybdenum and rare earth elements in fluids and deposit these as the main economic minerals.

2.2 Local Geology

The Mt Carbine tungsten deposit is similar to sheeted vein-type tungsten deposits in South China and these are divided into endo-contact (granite hosted) and exo-contact (wall-rock hosted) types. Mt Carbine is interpreted to be an exo-contact type.

The vertical structural zoning model for vein-type exo-contact tungsten deposits observed in China directly applies to the Mt Carbine vein system. The model is being incorporated in an evolving exploration model for the Mt Carbine and Mt Holmes vein systems, with Mt Holmes considered to be situated closer to the underlying mineralising granite than Mt Carbine (Figure 2-1).

The simplified conceptual geological model of the Mt Carbine area is based on that of Mt Holmes:

- Deposition of the Siluro-Devonian Hodgkinson Formation sequence.
- Several stages of complex folding and faulting of the Hodgkinson Formation.
- The intrusion of minor andesite and dolerite dykes.
- The intrusion of mineralising granite plutons with associated hornfels in the country rock.
- Emplacement of major sheeted quartz-wolframite-tin veining and hydrothermal alteration of wall-rock.
- The intrusion of post mineralisation dykes.

In the open-cut pit, the following rock types are observed in the order of abundance:

- **Metasediments** – a range of hornfelsed mudstones and interbedded rudites. The major rock unit in the pit can look similar to a slate with prominent cleavage. Various alterations from pervasive silicification are present, represented as a hornfelsed cordierite chloritic rock. Typically breakage planes are along cleavage and schistosity planes.
- **Metavolcanics** – located on the eastern end of the pit and the south side of the Southwest Fault (SWF) this unit is pale green with greenschist facies alteration. It forms about 20% of waste material and is less likely to contain mineralisation as it is a peripheral unit. It contains locally hard siliceous chert bands that form some of the larger rocks on the waste dump
- **Quartz Veins** – this rock type makes up to 10% by volume of the waste material and is found in all sizes but typically less than 20 cm. It presents as powder and shards throughout much of the dump material, which is interpreted to be a product of shattering during blasting. As previously

discussed, quartz veins can be barren or can contain tungsten mineralisation.

- **Dyke Material** – two types of dykes are observed:
  1. Pale uniform fine-grained felsic dyke that is exposed as a 10-15 m wide dyke at the western end of the pit; and
  2. Dark green/grey basic dyke that is present on most benches as a 0.5-1 m dyke cross- cutting the open pit.

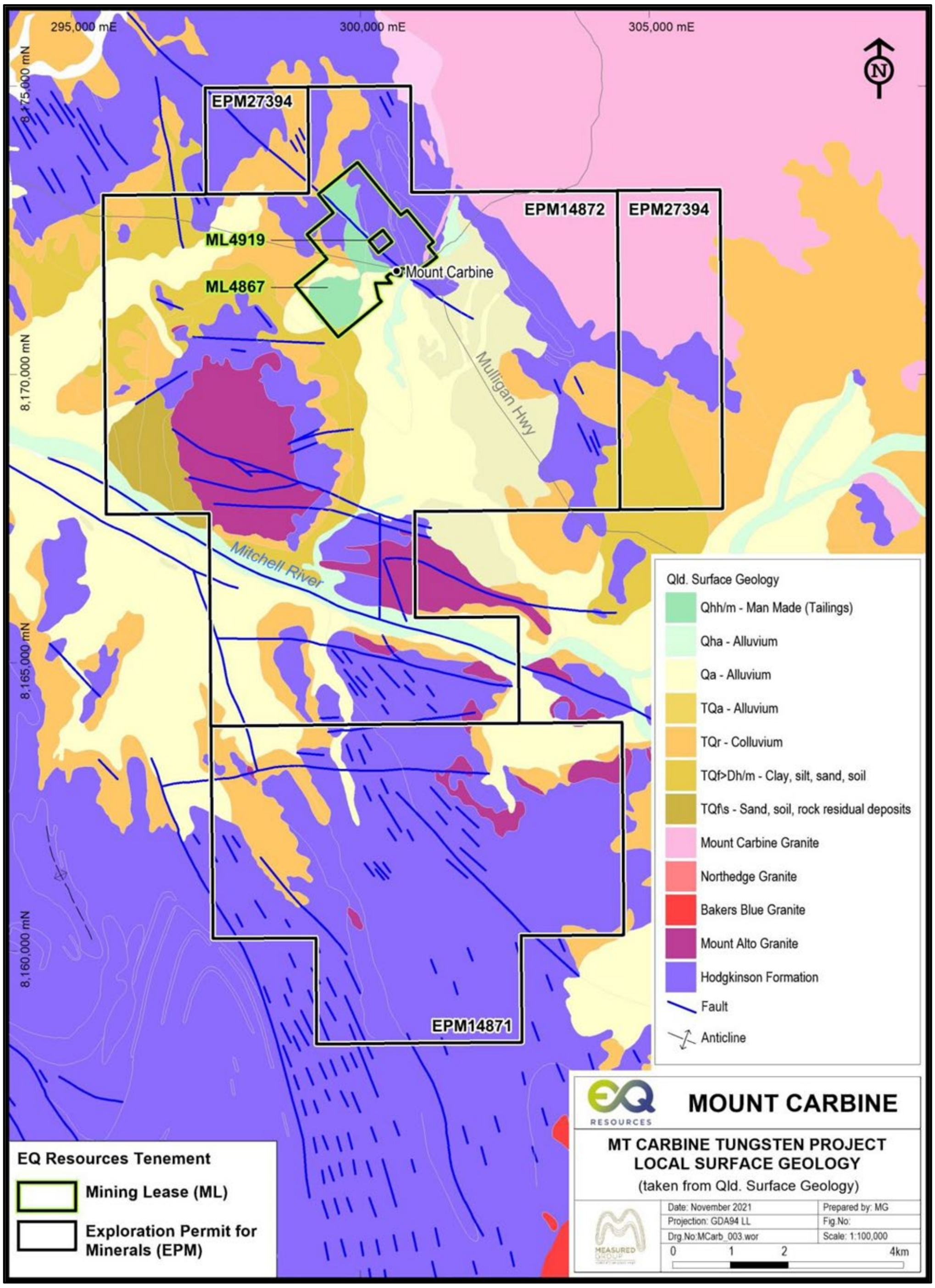

Figure 2-1: Mt Carbine Local Geology

2.3 Structure

Mt Carbine sits at a spur on a major arc parallel fault called the South Wall Fault (SWF), along with the Mossman Orogeny trend, which can be traced through the Hodkinson formation for over 100 km in strike length. The inflection point is likely due to a change in compressional regime due to oblique pressures present at an intersection of a major fault junction, the South West Fault (SWF). The SWF is a thrust fault formed at the time of compression and development of regional isoclinal folding of the basement rock, remaining active through to post tungsten mineralisation movement.

This terminology on the local scale with this thrust also called the ‘South Wall Fault’ (SWF) at Mt Carbine was kept. The SWF truncates the tungsten orebody at an angle of 70 degrees to the grid north. It forms a boundary fault on the southwest side of the mineralisation. Evidence suggests it is a reverse thrust fault, and by studying stratigraphic marker beds (chert- metabasalt unit) it is postulated that the throw is of the order of 200-300 m. The truncated parts of the Mt Carbine Tungsten mineralisation should still be open at depth in the footwall region of this fault. Figure 2-3 shows the location of the SWF in the open pit.

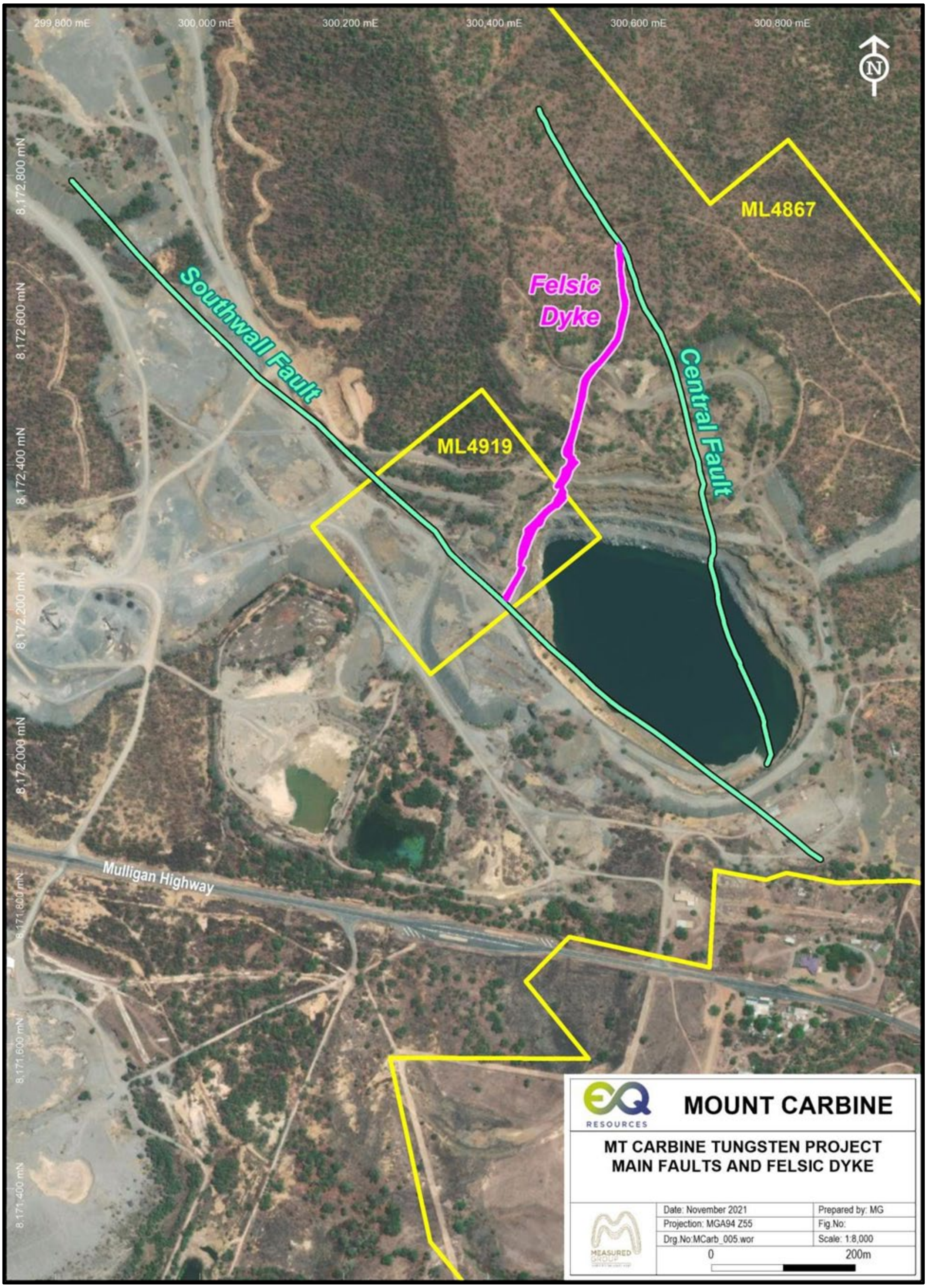

Figure 2-2: Mt Carbine Open Pit Structure

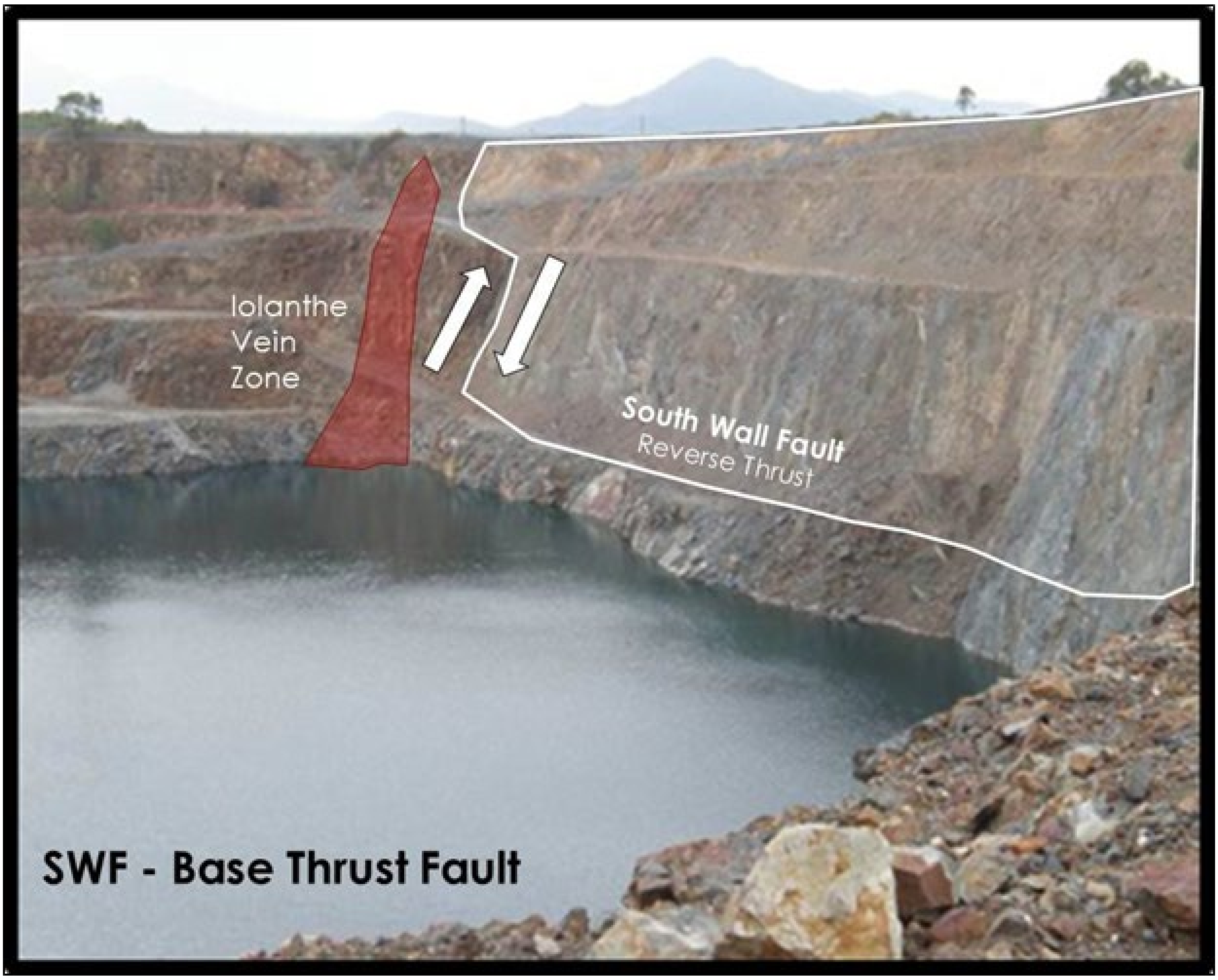

Figure 2-3: South Wall Thrust Fault

Other minor faults are typically orientated on a north-south strike direction and exhibit localised movement. The Central / Iron Duke and Christmas Faults both show strike-slip movement and in the case of the central fault, there is strike-slip movement across a dyke of 120 m in a left lateral direction. Whereas minimal throw is noted on the Christmas fault.

Within the confines of the pit, the rocks are hornfelsed but several deformation lineations can still be seen i.e. S0 (bedding), S1 minor folding and S2 isoclinal folding planes. The mineralised veins postdate this basement deformation, and there is little or no movement on the pit scale.

Veins can be traced over vertical distances of 300-400 m and strike distances for over 1,200 m with very few offsets. Occasionally in the pit, a regular low angle fault occurs that locally shifts the veins up to 3-4 metres. This low angle fracture regime tends to form blocks which will require geotechnical considerations for underground mining.

2.4 Low Grade Stockpile

During mining operations undertaken by Queensland Wolfram Limited, 22 Mt was mined from the pit, of which 12 Mt of low-grade material was sent directly to the Low Grade Stockpile (LGS). 10 Mt was optically sorted to extract white quartz from the ore, which resulted in 6 Mt of reject material (now since disposed) and 4 Mt of higher-grade ore that was processed.

A nearly complete record of mine production, including the amounts of mined rock consigned to the LGS has been compiled by EQR using published and unpublished archives, including using reports for State Royalty returns. Head grades were not recorded, rather they were calculated from the recovered grade using a nominal 70% recovery. The calculated head grade for the mine using this method was 0.14% WO_3. Several authors have subsequently postulated a higher feed grade based on a lower recovery at the processing plant with the head grade being as high as 0.16% WO_3.

During mining, grade control in the pit was difficult since the mining process focused on quartz vein content, with the percentage of quartz used to decide whether material was ore or waste. Since the completion of mining, geological interpretations have suggested that an early major barren quartz vein intrusion event occurred. This resulted in the processing of increased amounts of barren quartz, and the wasting of mineralised material to the LGS. The lack of an effective grade control system was instrumental in allowing higher-grade material to be dumped to the LGS.

The LGS consists of material ranging from fines to large boulders. It is largely heterogeneous and consists of layers of similarly sized material, which reflects the position of the mine at the time of emplacement. Cross sections through the LGS confirm the cyclic nature of the emplacement of material, with layers of similar sized material observed. Significant work has been completed to understand the size distribution of the LGS.

2.5 Recent Exploration Programs

EQR has completed 33 angled diamond drill holes (EQ001 – EQ033) in 2021/22. The drill holes targeted high-grade ore shoots below the current pit as well as areas to the north and west of the pit, to improve confidence in the lithology, structural interpretations, and mineralisation limits and to improve the resolution of geological models.

Figure 2-4 shows the drill hole location map relative to the historical pit. The red-coloured locations are showing the 2021/22 drilling program whilst the blue locations are historical drill holes.

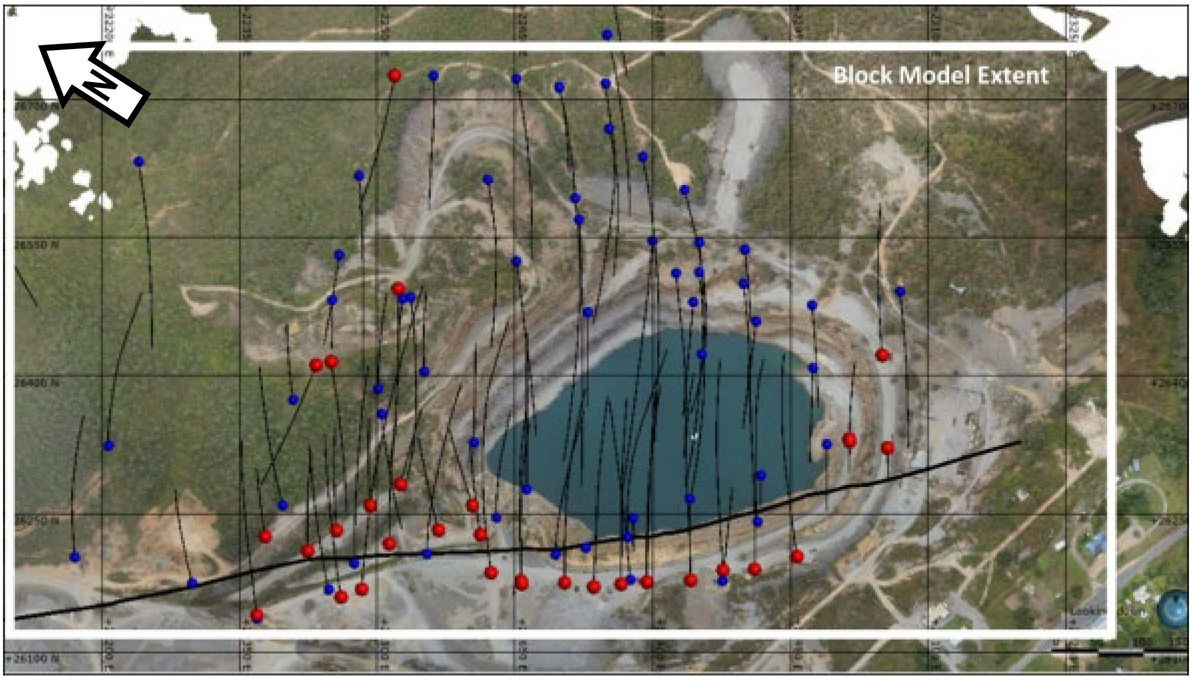

Figure 2-4: Mt Carbine Exploration Holes

2.6 Data Supporting Ore Resource and Reserve Estimates

2.6.1 Open Pit

All zones of potential mineralisation were logged and sampled by cutting the selected core interval in half using a diamond saw along the centre core orientation line mark. Before cutting and sampling, the core was logged for zones of visual mineralisation, with wolframite and scheelite recorded by their visual contained percentage.

Scheelite glows under ultraviolet light, and although difficult to distinguish under ordinary light from quartz-carbonate, it is visual under the shortwave 254 nm UV light. A common technique to estimate grade in core is to trace out individual crystals to determine the overall percentage shown on the face of the core. The mineralisation was often observed as very coarse tungsten mineral crystals of up to 10 cm in size.

All quartz veins intersected in drill core were assayed as separate samples. Where the veins were more than 1 m in downhole length, the sample was broken into two or more samples - each with a maximum of 1 m interval. The minimum vein assayed was 5 cm in width, because the mineralisation often occurs in narrow widths of 5 cm to 500 cm and it is important to assay each narrow mineralised zone. On either side of the mineralised zone, samples were taken of the host rock at intervals of 1 m to ascertain whether the mineralisation had disseminated into the host rock.

X-ray fluorescence assay techniques were used to determine the tungsten grade (ME-XRF15b). Using this technique, a fusion disk is created for the representative sample of the core sample, it is created by grinding the sample to achieve a homogenous sample (<200 microns). The sample is then melted in an arc furnace to produce a clear fused disc, which is then x-rayed with the fluorescence recording spectral peaks.

The instrument used to determine the tungsten grade is a Bruker multi-shot XRF machine with an X-ray scan of 1 minute applied to each disk to ascertain the light and heavy elements. The XRF machine is calibrated by the laboratory to maintain reliable and repeatable results.

Approximately 10% of each batch that is sent to the laboratory includes check samples, which are submitted alternatively as being either a blank, a tungsten standard or a repeat sample with a known grade. This process was successfully used to resolve an issue with samples 100216 and 100217, which are samples vein and host rock (respectively). The results for these samples did not match the visual grade determination or the weights of the samples and it was established that the grade of 0.72% was in the vein, not the host rock. It was concluded that samples were mistakenly switched at the laboratory, and this was rectified prior to loading into the assay database.

ALS was used for assaying samples. ALS is a NATA accredited laboratory that conducts internal and external round-robin analysis to maintain its certification and to ensure their equipment is correctly calibrated and reliable. Final samples were bagged and prepared for transport to Brisbane via road or rail. Reserves from the assayed samples have been archived for future re-sampling. Chain of custody between EQR and ALS requires both parties to record and check sample and/or batch numbers on dispatch/receipt of sample shipments and check for any signs of tampering or damage.

2.6.2 Low Grade Stockpile

To determine the grade distribution of the LGS, a comprehensive sampling programme was developed to achieve representative sampling of the stockpile material. The sampling that was undertaken to achieve this is summarised below, while Figure 2-5 shows the location of the samples:

- **Sites Selection** – The dump was divided into quadrants with a major and minor sample location being marked. In two of the quadrants, two sample sites were selected to see repeatability.
- **Sample Size** - 6 trench samples (each trench taken at approximately 10 m wide x 5 m deep x 40 m length was deemed to be representative of that part of the dump each comprising a 3,500-t sample.

- **Method** – The sample was collected using 25 t trucks and a 30 t excavator being careful to load all the material from the sample trench and the run over the weighbridge to determine weight before being added to a large stockpile. A total of 22,000 t was collected from the 6 separate locations. This was then cone and quartered down to a subset sample of 2,000 t which was fully crushed to a nominal 40 mm and sampled.

The bulk sample average was determined to be 0.075% WO_3.

Further sampling of the LGS for environmental permitting purposes involved taking 80 grab samples from the surface of the stockpile. Each sample was approximately 20 kg of minus 100 mm material. The average grade of these samples was 0.088% WO_3.

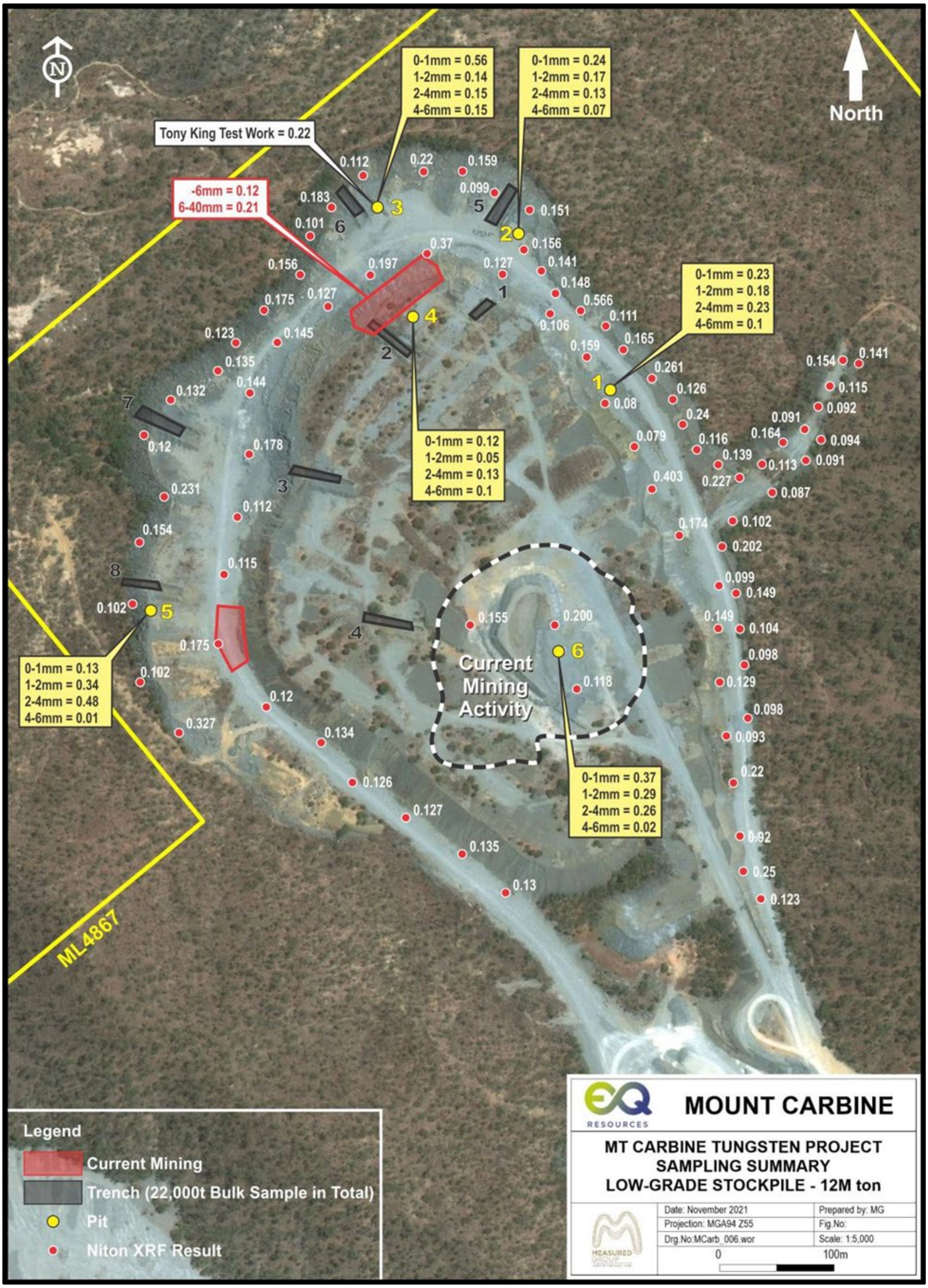

Figure 2-5: Mt Carbine LGS Sampling Locations

3. MINE PLANNING

3.1 Mine Setting

The key features of Mt Carbine which directly influences the mine design, equipment allocation and the schedule are:

- Topography is relatively flat within the proposed open pit area with minor undulation across the deposit. The topography rises to the north-west with a 120m high hill located in the central region of the tenement. The crest of the hill is located approximately 500m to the north of the current ore sorter.
- A total of 160 individual tungsten veins have been modelled across the deposit. The planned open pit mines approximately 70 of the modelled veins.
- The veins are near vertical and vary in width from approximately 30 centimetres to over 10m.
- The mine is developed in three phases, with the first finishing off the previously started phase from the 1980's, the second phase will extend the open pit to the north into the rising topography and the third going deeper under the phase one zone.
- Manganese Creek and Holmes Creek drain the site and flow to Mitchell River approximately 5 km away. Both these creeks are intermittent watercourses that are dry for most of the year.
- No major powerlines cross the planned open pit mining area.
- There are no endangered ecosystems within the planned mining area.

An isometric view of the current open-pit, LGS, ore sorter and offices is shown in Figure 3-1 which an aerial photograph of the current open pit provided in Figure 3-2.

Figure 3-1: Mt Carbine Mine Setting

Figure 3-2: Current Mt Carbine Mine Open Pit

3.2 Pit Optimisation

3.2.1 Economic Pit Limits

The economic pit limits were initially calculated using the Deswik Pseudoflow Pit Optimisation module. The module requires several key sets of input data, including:

- Resource model,
- Mining dilution and recovery factors,
- Metallurgical factors,
- Unit cost rates,
- Revenue assumptions,
- Geotechnical parameters.

The outputs from Deswik Pseudoflow were then used to generate a detailed pit shell which was used to generate a life-of-mine schedule.

3.2.2 Pit Design Parameters

The design of the majority of the open pit is based on the current wall design parameters, which have performed very well since mining ceased in the 1980's, as well as design requirements for drill and blast plus ramp access.

The dig design parameters for the majority of the open pit are summarised in Table 3.1.

Table 3-1 – Pit Design Parameters

Item	Units	Value
Final Wall Batter Angle	degs	70
Final Wall Bench Height	m	20
Final Wall Bench Width	m	8
Access Ramp Width	m	20
Access Ramp Maximum Grade	%	10

The mine plan assumes that rigid dump trucks will be used for all waste and ore haulage.

3.2.3 South Wall Fault

The primary area of geotechnical risk in the open pit exists along the southern wall near the south wall fault. The geotechnical advice for this wall is to either mine out the fault or where it is not economically feasible to remove the extra waste, rock bolt each bench as per the cross-sectional profile shown in Figure 3-3.

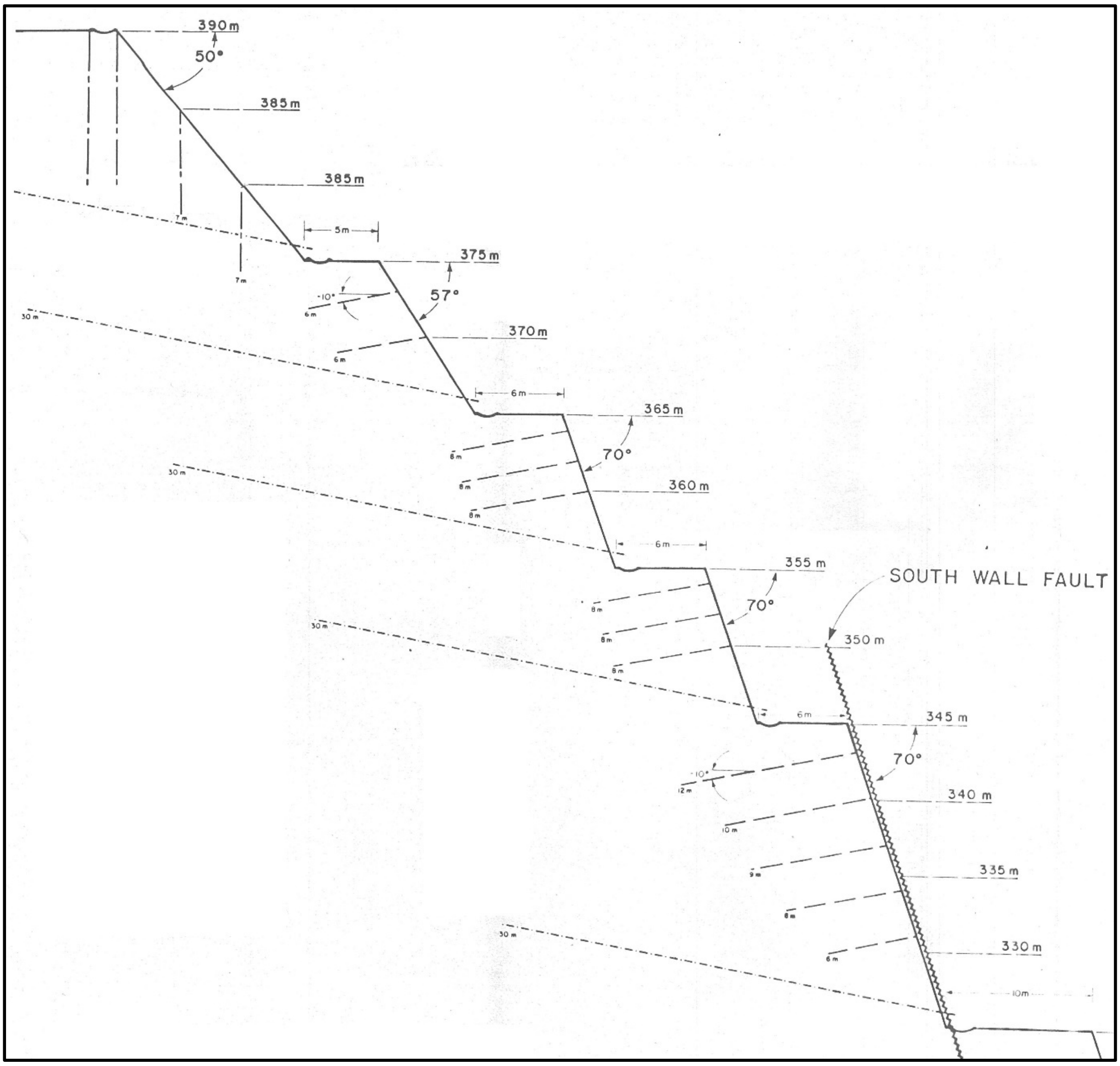

Figure 3-3 –South Wall Geotechnical Design

The geotechnical analysis of this wall indicates that the current pit design may require rock bolting at close intervals to minimise the probability of this wall causing geotechnical disruptions.

Capital and operating cost allowances have been made in the financial assessment to monitor and treat this wall as it is exposed in the final wall. The two upper benches in the south wall, which are located in weathered material, have been excavated at 50 degrees and 57 degrees as specified by the geotechnical assessment.

3.2.4 Cost Assumptions

Unit costs have been supplied by EQ Resources from quotes provided by mining contractors and Ausenco for processing costs of the upgraded facilities. Drill and blast plus open pit mining costs were estimated based on the required fleet. The average unit costs used are shown in Table 3.2.

Table 3-2 – Average Unit Costs for Economic Pit Limit Calculation

Cost Item	Units	Unit Cost
Drill & Blast	$/t	$1.26
Waste Mining	$/t	$3.27
Ore Mining	$/t	$3.30
Crushing\Screening	$/feed t	$2.00
Ore Sorting	$/feed t	$1.49
Gravity Plant	$/feed t	$12.45
Rehabilitation	$/total t	$0.26
Contractor Overheads	$/total t	$1.34
State Royalty	% of revenue	2.70%

3.2.5 Revenue Assumptions

Revenue assumptions are based on the forecast for ammonium paratungstate (APT) price of US$340 per mtu (metric tonne unit, 1mtu=10kg) with a AUD:USD exchange rate of 0.73 applied. This equates to US$12,240/concentrate tonne produced on site based on the concentrate being 50% WO_3 grade and 72% of the WO_3 in the APT is payable ($340 * 100mtu/tonne * 50% * 72%). The final assumed realised price for each tonne of 50% WO_3 concentrate is AU$16,767 for the pit optimisation work.

Despite currently generating income from quarry material, no revenue has been generated from this procedure as part of the economic pit shell calculation evaluation of the Reserves.

The old open pit currently contains water which is being pumped out. The base of the pit beneath the water has been compiled from old survey maps plus depth sounding information taken from the water level. The starting topography for the open pit, with the current water area shaded dark blue, is shown in Figure 3-4.

Figure 3-4 –Open Pit Starting Topography

The total economic pit shell, which the Ore Reserves Estimate is based on, is shown in Figure 3-5.

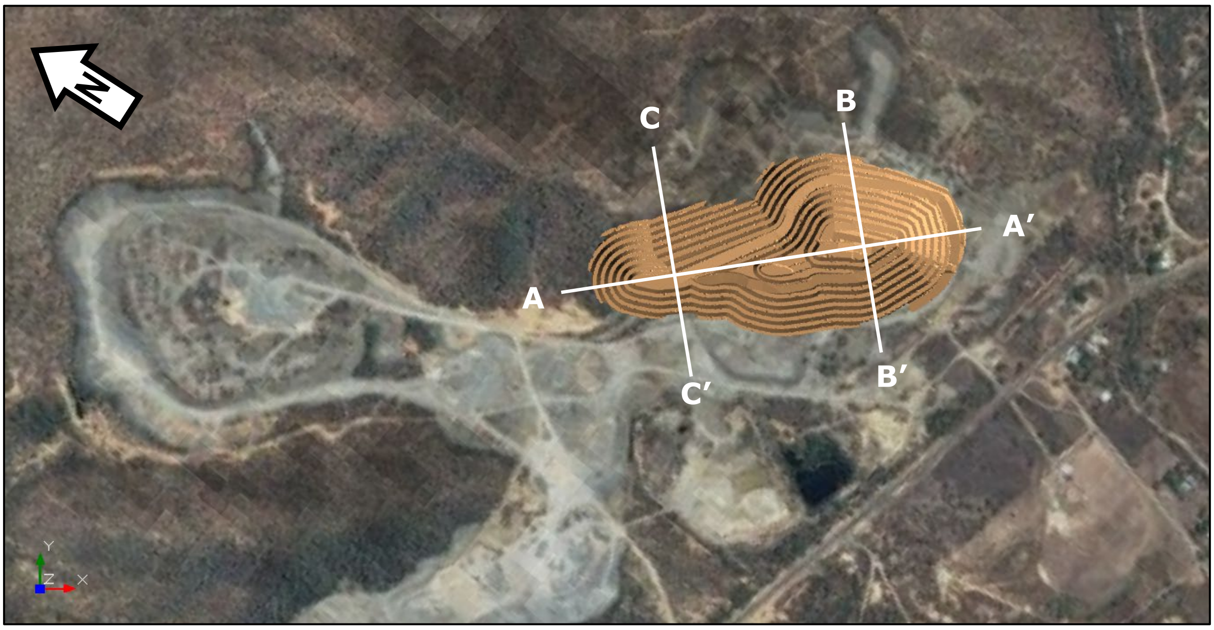

Figure 3-5 – Economic Pit Shell for Mt Carbine

The economic pit shell shown in Figure 3-5 was broken into 3.5m high flitches and interrogated against the resource model before being scheduled.

Cross sections A, B and C as shown in Figure 3-6, Figure 3-7 and Figure 3-8 are shown below with the current topography (green), economic pit shell (tan) and resource model cells.

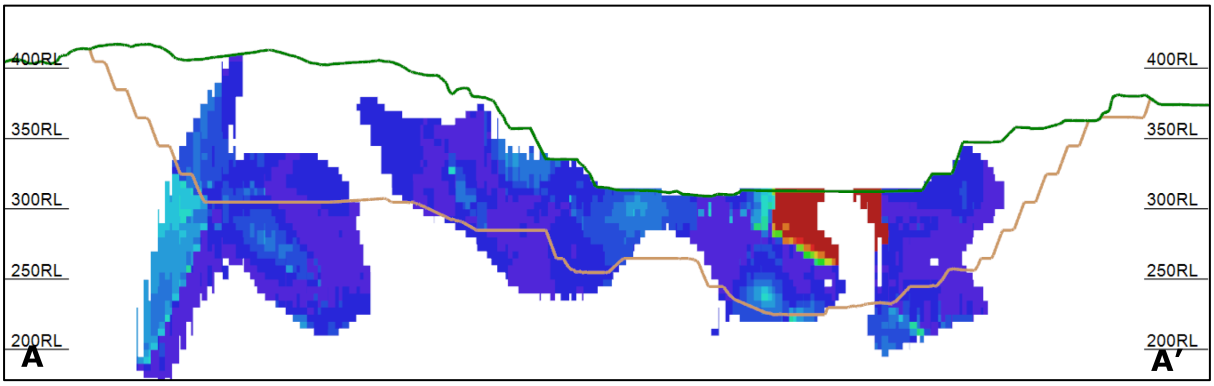

Figure 3-6 – Cross Section A-A'

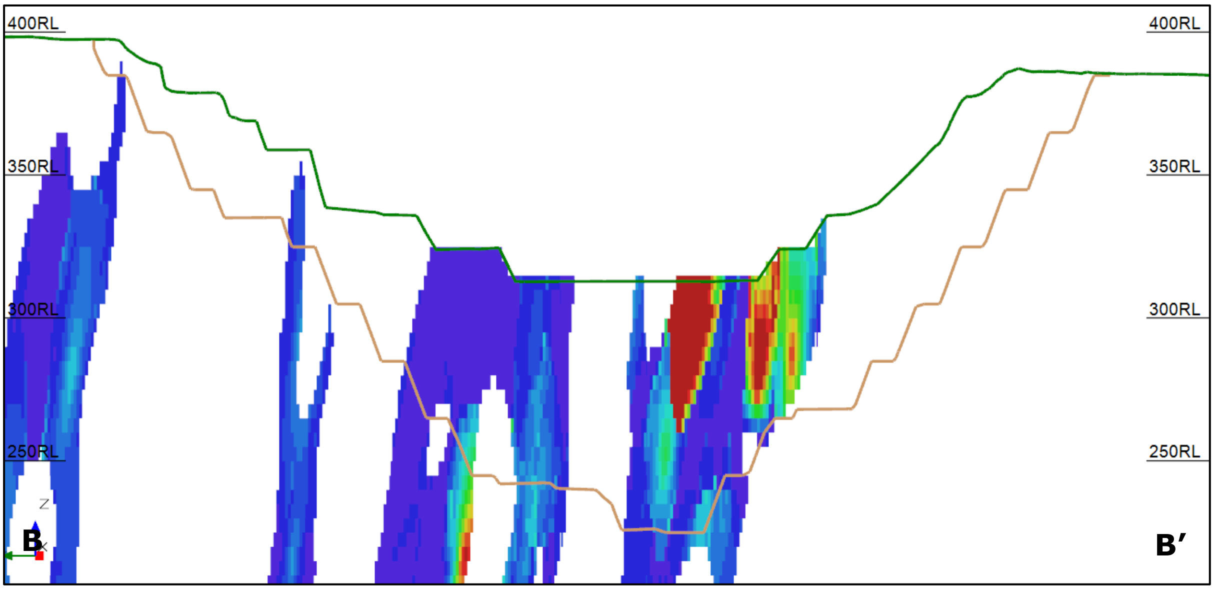

Figure 3-7 – Cross Section B-B'

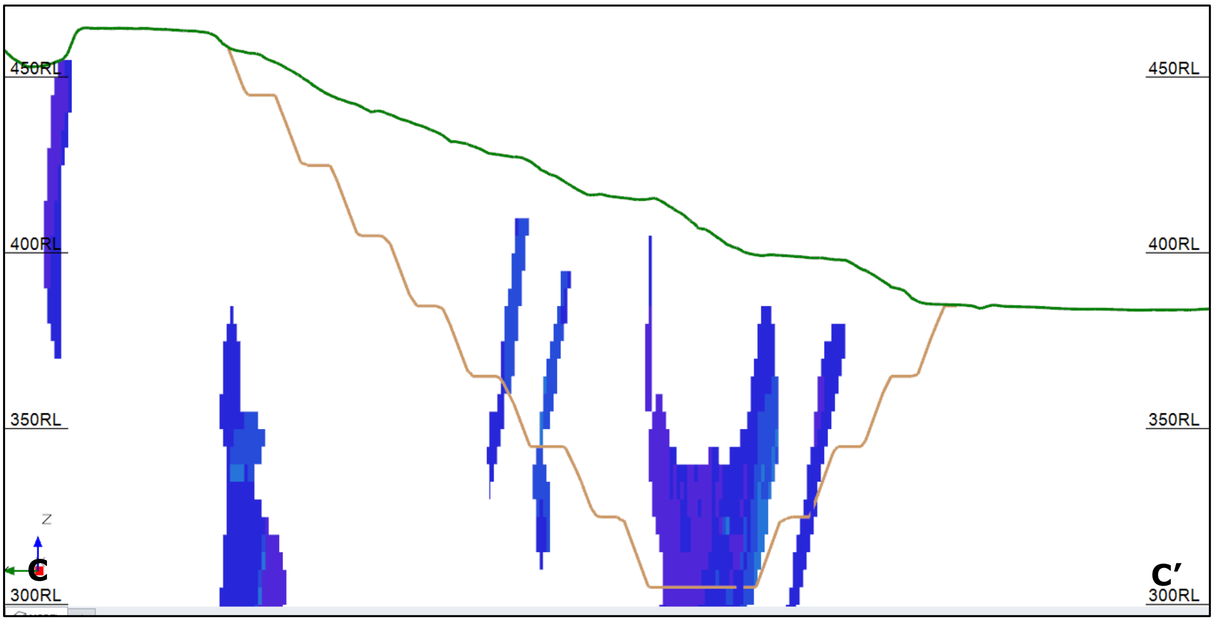

Figure 3-8 – Cross Section C-C’

3.3 Mining Method

The low-grade stockpile is currently processed by a 50t excavator and accompanying articulated dump trucks (ADTs). When the new mining contractor starts it will use a front end loaded with rigid rear dump haul trucks.

The open pit will recommence mining using conventional drill and blast then excavator and truck operations. Blasting will be in 10m benches with the excavator then digging the blasted material in approximately 3 x 3.5m flitches.

For scheduling and costing purposes, it has been assumed that all material will be drilled and blasted, however some upper waste material may be free dug.

The open pit will be developed using one primary fleet of a 190-tonne class excavator loading 55t rigid rear dump trucks or 45t articulated trucks as well as a secondary 50-tonne class excavator providing assistance for selective and/or tight mining areas.

The mining fleet will be supported by ancillary equipment including a dozer, grader and water cart. Topsoil stripping will be undertaken where there will be disturbance beyond the footprint of the previous open pit area.

3.4 Mining Layout

3.4.1 Pit Limits

A plan view of the open pit with modelled ore at 310RL is displayed in Figure 3-9.

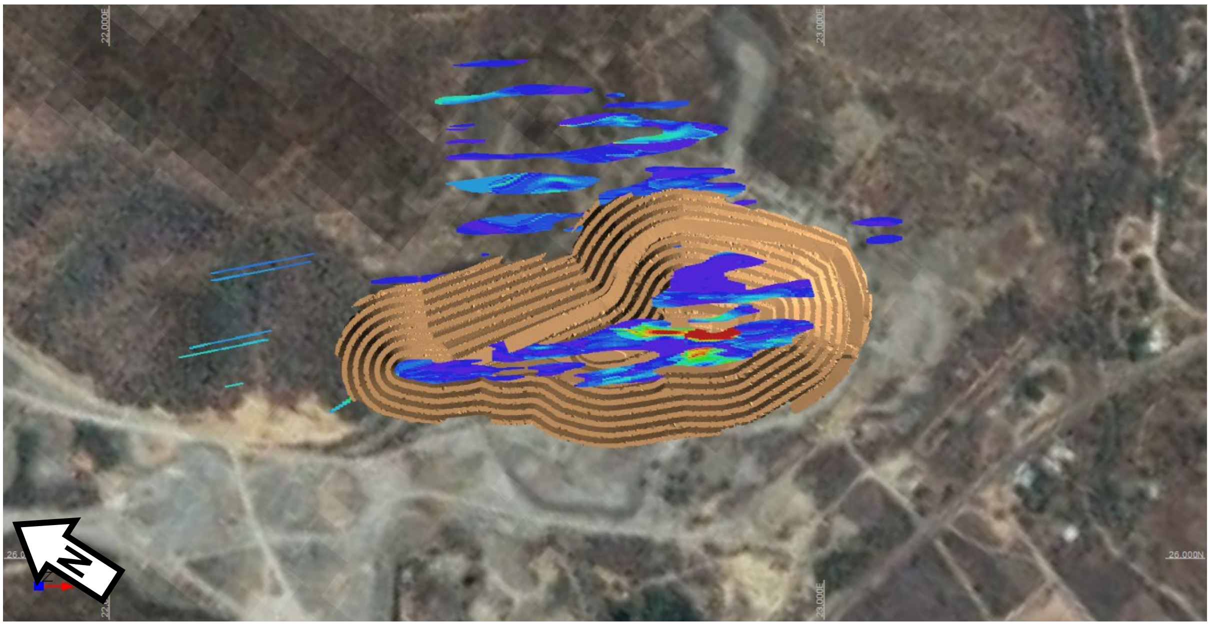

Figure 3-9 – Open Pit and Resource Model

It is estimated that 9.77Mt of ore will be remaining in the LGS based on depletion of the previous Ore Reserves Estimate using the production records of the recent reclamation of the stockpile.

The location of the LGS is shown in Figure 3-10.

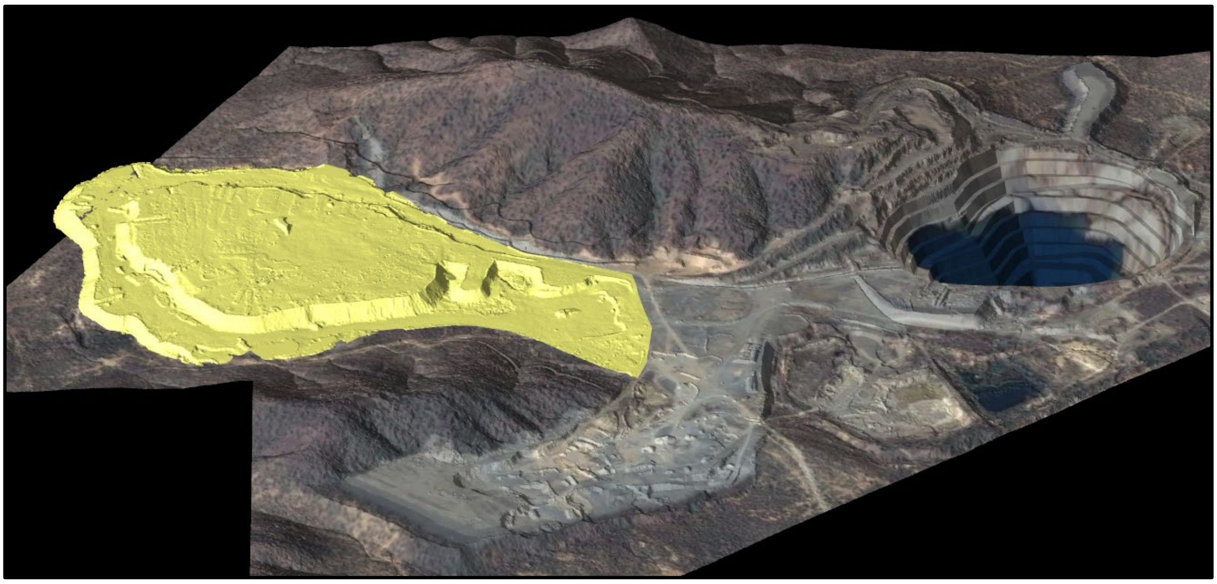

Figure 3-10 – Low Grade Stockpile Ore Blocks

3.5 Mining Assumptions and Modifying Factors

Modifying factors were applied to the insitu quantities and qualities to convert from an in situ basis to a ROM basis. Metallurgical modifying factors were then applied to calculate product information.

3.5.1 Loss and Dilution

The geological resource model was a regularized block model with cells 1m wide x 5m long x 5m deep. Cells with a grade greater than 0.05% WO_3 were initially assigned as ore.

A 1% global loss was then applied to the ore.

3.5.2 Metallurgical Factors

The mined ore passes through a network of processing facilities, with the process summarised in Figure 3-10.

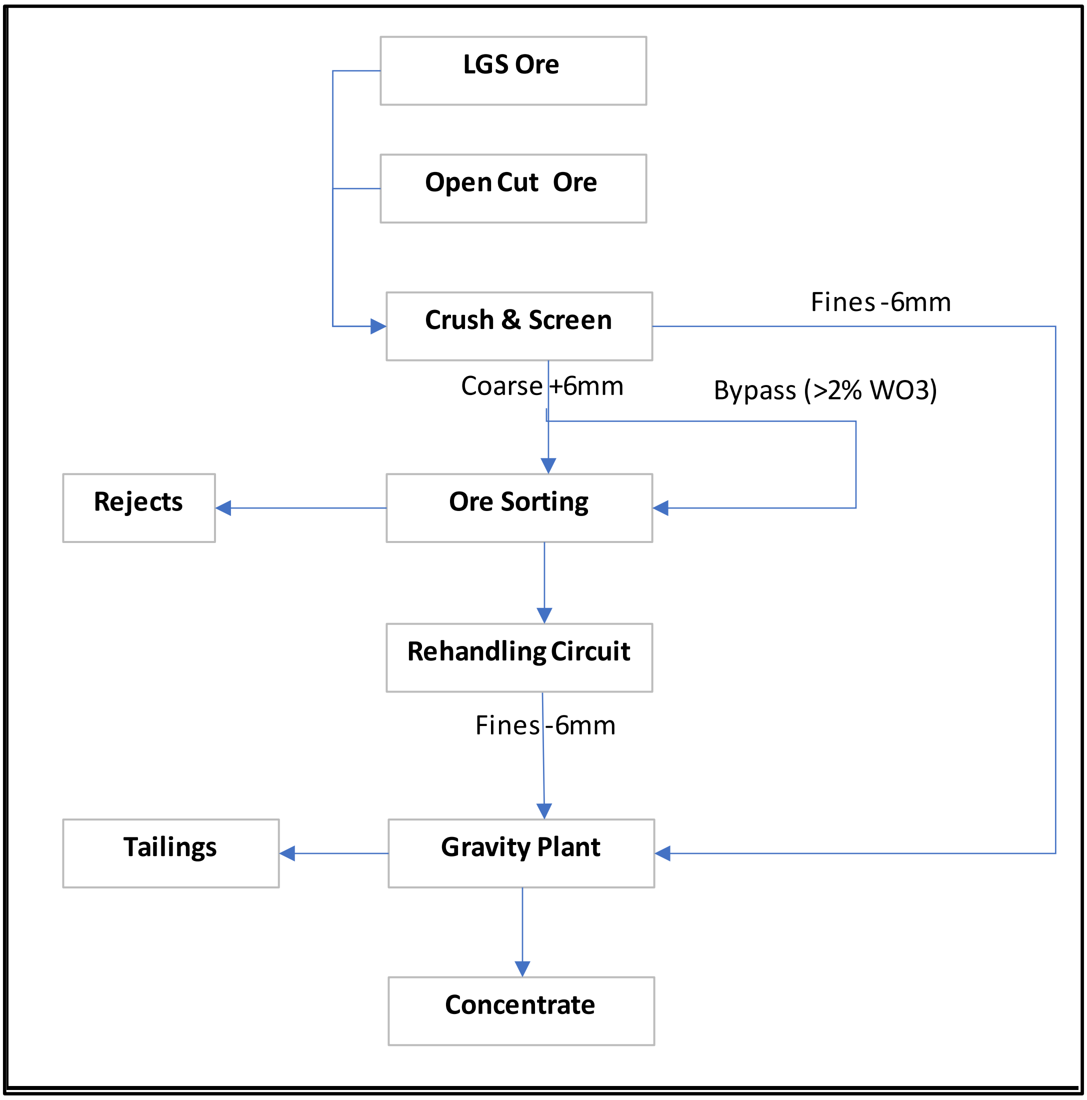

Figure 3-11 – Mt Carbine Ore Processing Flowchart

The above flow chart includes a combination of both existing infrastructure and planned upgrade facilities.

Table 3.3 summarises the average metallurgical factors achieved at each section of the processing flowchart.

Table 3-3 – Average Metallurgical Factors

Factor	Value
Crush & Screen Fines/Coarse Mass Split	36%/64%
Crush & Screen Fines WO_3 Upgrade	150%
Ore Sorter Mass Recovery Equation	45.45 * Feed Grade + 0.0455
Ore Sorter Tungsten Recovery	90%
Wet Plant Fines Tungsten Recovery	79.3%
Wet Plant Coarse Tungsten Recovery	90%
Wet Plant Total Tungsten Recovery	82.7%
Total Tungsten Recovery	80.3%

3.5.2.1 Crushing & Screening

The upgraded crushing and screening circuit produces two products:

1. –6mm Fines Product - which is pumped as a slurry directly to the gravity plant, and
2. +6mm, -40mm Coarse Product - which is stacked on the ore sorter feed stockpile

For scheduling and costing purposes and based on recent operating results, it has been assumed that 36% of the feed mass reports to the fines stream and 64% to the coarse stream. Test work and recent processing results have confirmed a natural tendency for the tungsten minerals to preferentially fractionate into the finer size fractions. It is therefore assumed that the fines stream grade was upgraded by 150% with the remaining WO_3 reporting to the coarse stream.

3.5.2.2 Ore Sorting

The XRT ore sorters produce two output streams:

1. Rejects – which is stockpiled for transportation to the quarry stockpile areas, and
2. +6mm, -40mm ore sorter concentrate which is stacked on a stockpile for transportation to the rehandling circuit to be reduced to -6mm for feed into the gravity plant.

For scheduling and costing purposes and based on recent operating results, the linear equation shown in Figure 3-11 was used to calculate the mass recovery for the ore sorter product. A WO_3 mass recovery of 90% was assumed to calculate the product WO_3 grade.

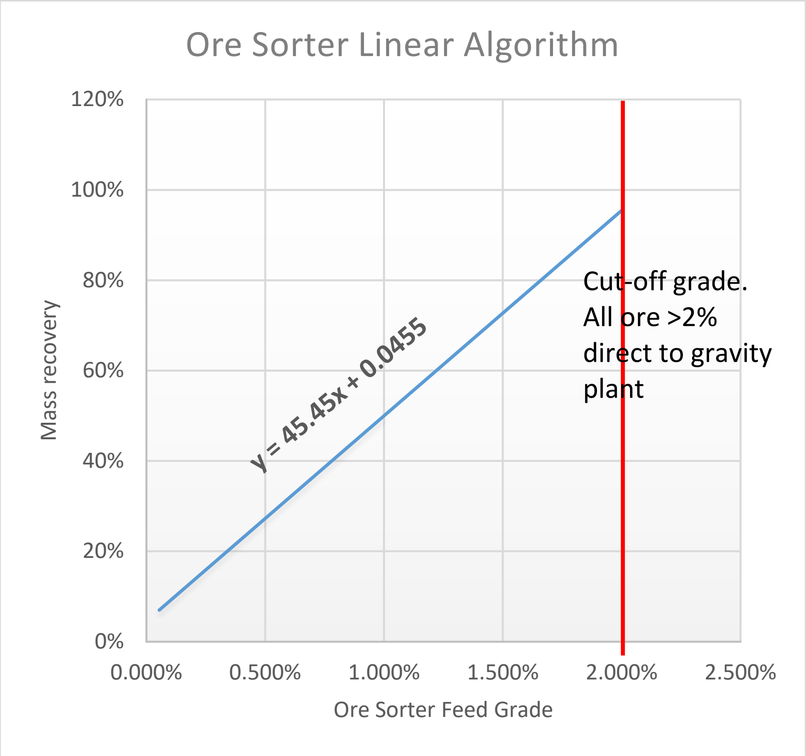

Figure 3-12 – Ore Sorter Product Algorithm

3.5.2.3 Gravity Plant

The gravity plant produces two output streams:

1. Tailings – which is dried and stockpiled for transportation to the quarry stockpile areas, and
2. Concentrate – which is dried and stored in 1 tonne bags for sale to the customer.

3.5.3 Existing Infrastructure

The existing crushing and screening flowsheet consists of two stages crushing and screening circuits to produce two products:

1. –6mm wet plant feed
2. +6mm, -40mm ore sorter feed

Run of mine (ROM) ore (-700mm) is delivered to the fixed jaw crusher which has a closed side setting of -75mm. The jaw crusher discharge belt transfers primary crushed ore onto a 900mm wide screen feed conveyor. The screening plant consists of a mobile fitted with two decks to split the feed into two streams:

1. Oversize (+40mm) to the cone crusher circuit
2. Undersize (-6mm) to the -6mm stockpile

The secondary cone crusher discharge is fed onto a belt conveyor and recirculates back to the sizing screen for separation into product sizes.

The existing ore sorter consists of a single hopper feed point, dry screen to dress ore before the ore sorter and a single ore sorter. The ore sorter circuit produces two products:

1. Rejects
2. +6mm, -40mm ore sorter product that is crushed by a cone crusher to -6mm for feed into the processing plant.

Ore is fed into the existing processing plant and onto a wet screen which separates the -6mm material and the +6mm material. The +6mm material is sent back to the ore sorter for processing.

The -6mm particles are pumped to a pulse jig where the high density, tungsten bearing particles are concentrated and pumped to a secondary wet screen with 0.8mm panels on the screen. The +0.8mm particles are fed to a rolls crusher and then pumped back to the front of the screen while the -0.8mm sized material is dewatered and sent to six shaking tables.

The shaking tables produce a rougher concentrate which is pumped to a final cleaner table. The tailings from the rougher tables are pumped back to the screen, to be jigged once more to minimise losses and increase recovery. The cleaner table produces a final concentrate which is bagged immediately. The tailings from the cleaner table are pumped back to the secondary screen, to undergo sizing and crushing once more to ensure minimal losses.

A significant amount of data is available on the metallurgical performance of the existing processing infrastructure.

Figure 3-13 – Current crushing, screening, ore sorting and stockpiling operations.

3.5.4 New Infrastructure

The upgraded ore sorter circuit flowsheet has been prepared by Mincore, a minerals processing and engineering consultancy.

The ore sorter will be upgraded to accommodate the proposed increase in annual ore tonnage. The treatment rate will be 80tph to achieve an annualised throughput of 525,600 tonnes.

Additional processing infrastructure, which will allow the site to mine up to 1Mtpa of ore, has been designed and costed (for both capital and operating costs) by Ausenco, a multinational engineering consultancy firm, in 2021 to PFS-level of detail.

The proposed additional processing infrastructure will process ore at a rate of 60tph. Historical performance data plus results of metallurgical test work Minerals Institute for the ore sorter has been referenced when calculating the performance of the ore sorting facilities.

Historical performance data plus results of laboratory metallurgical testing completed by Ausenco as part of the plant expansion project has been referenced when analysing the performance of the processing plant.

3.6 Detailed Mine Schedules

A detailed schedule has been compiled in Spry based off the economic pit shell as described in section 1.15.

The mine schedule comprises of four main processes:

- Drilling
- Blasting
- Waste Mining
- Ore Mining

One mining fleet was scheduled, a primary 190t excavator with a 50t excavator as an alternative machine for small jobs. All waste and ore is assumed to require drilling and blasting. A front end loader was scheduled as the stockpile reclaim unit.

The productivities for all drilling and blasting plus mining equipment is summarised in Table 3.4.

Table 3-4 – Average Equipment Productivities

Equipment	Process	Rate
Drill	Waste Drilling	30m/hr
	Ore Drilling	30m/hr
190t Excavator	Waste Mining	1,523 t/hr
	Ore Mining	1,198 t/hr

Practical dependencies and constraints were applied to ensure the correct progression of the equipment and the mine in general. Benches were developed away from the ramp with two active faces allowed on each bench.

The strategy of the schedule was to develop the open pit in a logical manner with a total mining movement of between 5 and 5.5Mtpa. A total crushing feed rate of 1Mtpa was also targeted with any excess ore stockpiled on the ROM whilst any deficiencies in ore then utilized the ROM stockpile as a priority and then the low-grade stockpile to top up the annual ore quantity to 1Mt. The start date of mining from the pit is planned for 1st June 2023.

Destination scheduling was completed as part of the detailed schedule, with a swell factor of 25% applied to all prime material to ensure there is adequate dump room for all material mined.

A summary of the major physicals and qualities from the mine schedule results is provided in Table 3.5 along with summary charts in Figure 3-14 to Figure 3-15.

Table 3-5 – Annual Quantities and Qualities

	Units	2023	2024	2025	2026	2027	2028	2029	Total
Drill & Blast									
Drilling	m	77,305	150,404	122,217	171,392	153,821	136,758	46,959	858,855
Explosives	t	605	1,188	959	1,350	1,218	1,076	372	6,768
Material Blasted	bcm	756,315	1,485,411	1,199,315	1,687,292	1,522,483	1,345,390	464,382	8,460,588
Mining									
Waste Tonnes	t	831,205	3,479,514	2,888,633	2,942,936	3,818,614	2,491,380	811,234	17,263,517
Ore Tonnes	t	520,000	509,979	988,630	1,105,548	657,298	1,384,053	762,554	5,928,062
Total Tonnes	**t**	**1,351,205**	**3,989,493**	**3,877,263**	**4,048,485**	**4,475,911**	**3,875,433**	**1,573,788**	23,191,579
Ore WO3 Grade	%	0.62%	0.28%	0.27%	0.40%	0.12%	0.16%	0.26%	0.28%
Equipment									
Drills	hrs	2,577	5,013	4,074	5,713	5,127	4,559	1,565	28,629
Waste Excavator	hrs	694	2,163	1,997	1,883	2,304	1,708	588	11,337
Ore Excavator	hrs	636	559	762	876	441	1,059	615	4,948
Waste Productivity	t/ophr	1,198	1,609	1,446	1,563	1,658	1,459	1,379	1,523
Ore Productivity	t/ophr	817	912	1,297	1,262	1,492	1,307	1,240	1,198
Processing									
Crush & Screen									
Feed Tonnes	t	520,000	509,979	988,630	1,105,548	657,298	1,384,053	762,554	5,928,062
Feed WO3 Grade	%	0.62%	0.28%	0.27%	0.40%	0.12%	0.16%	0.26%	0.28%
Fines Tonnes	t	187,200	183,592	355,907	397,997	236,627	498,259	274,519	2,134,102
Fines WO3 Grade	%	0.92%	0.42%	0.41%	0.60%	0.18%	0.24%	0.38%	0.42%
Coarse Tonnes	t	332,800	326,386	632,723	707,551	420,670	885,794	488,035	3,793,960
Coarse WO3 Grade	%	0.44%	0.20%	0.20%	0.29%	0.09%	0.11%	0.18%	0.20%
Ore Sorter									
Bypass Tonnes	t	187,200	183,592	355,907	397,997	236,627	498,259	274,519	2,134,102
Bypass WO3 Grade	%	0.92%	0.42%	0.41%	0.60%	0.18%	0.24%	0.38%	0.42%
Feed Tonnes	t	332,800	326,386	632,723	707,551	420,670	885,794	488,035	3,793,960
Feed WO3 Grade	%	0.44%	0.20%	0.20%	0.29%	0.09%	0.11%	0.18%	0.20%
Output Tonnes	t	53,248	52,222	101,236	113,208	67,307	141,727	78,086	607,034
Output WO3 Grade	%	2.50%	1.15%	1.11%	1.62%	0.48%	0.64%	1.04%	1.14%
Rejects Tonnes	t	279,552	274,165	531,488	594,343	353,363	744,067	409,949	3,186,926
Gravity Plant									
Feed Tonnes	t	240,448	235,814	457,143	511,206	303,934	639,986	352,605	2,741,136
Feed WO3 Grade	%	1.27%	0.58%	0.57%	0.82%	0.25%	0.33%	0.53%	0.58%
Concentrate Tonnes	t	5,143	2,315	4,349	7,088	1,262	3,515	3,143	26,813
Concentrate WO3 Grade	%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
Concentrate WO3 Tonnes	**t**	**2,571**	**1,157**	**2,174**	**3,544**	**631**	**1,757**	**1,571**	**13,407**

Figure 3-14 – Mining Movements

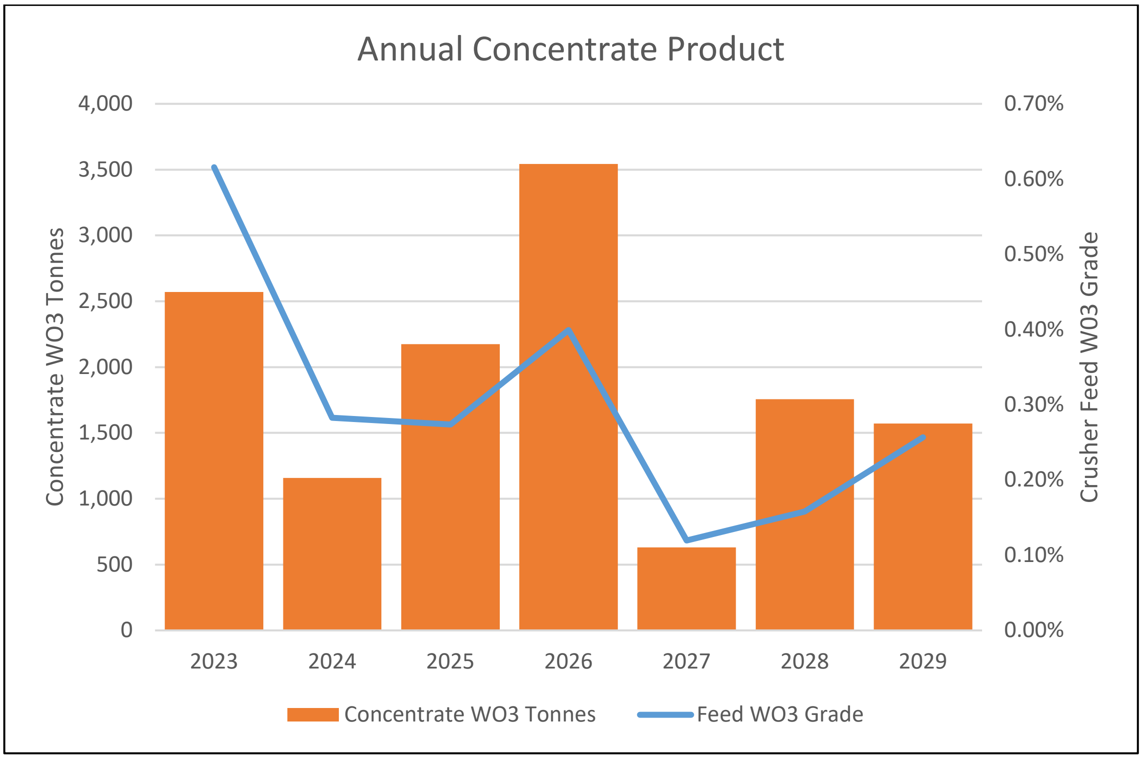

Figure 3-15 – Concentrate Production

Stage plans showing the progression of the mine at the end of each year of the operation of the open pit are provided in Figure 3-17 to Figure 3-23.

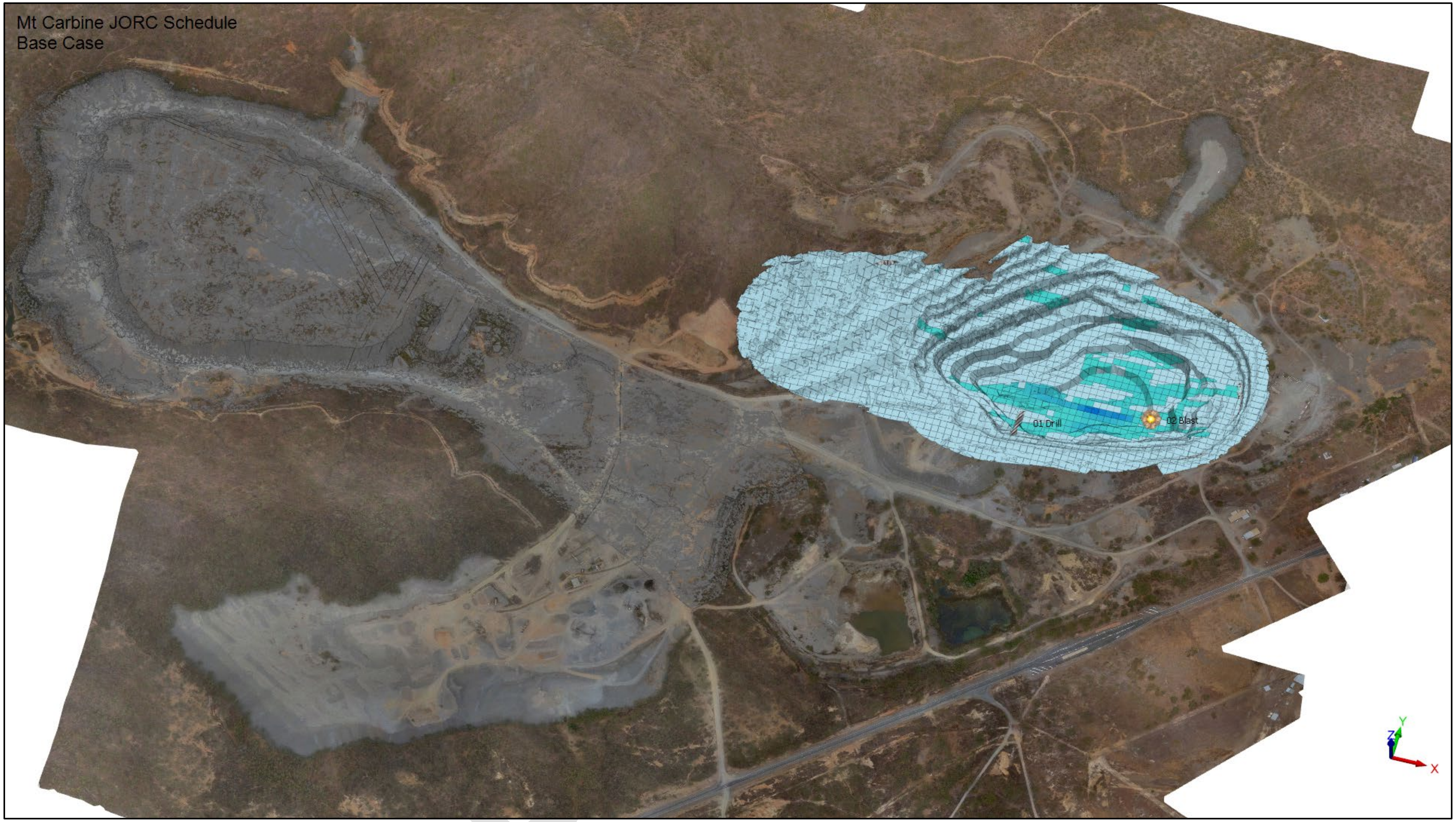

Figure 3-16 – Starting Topography

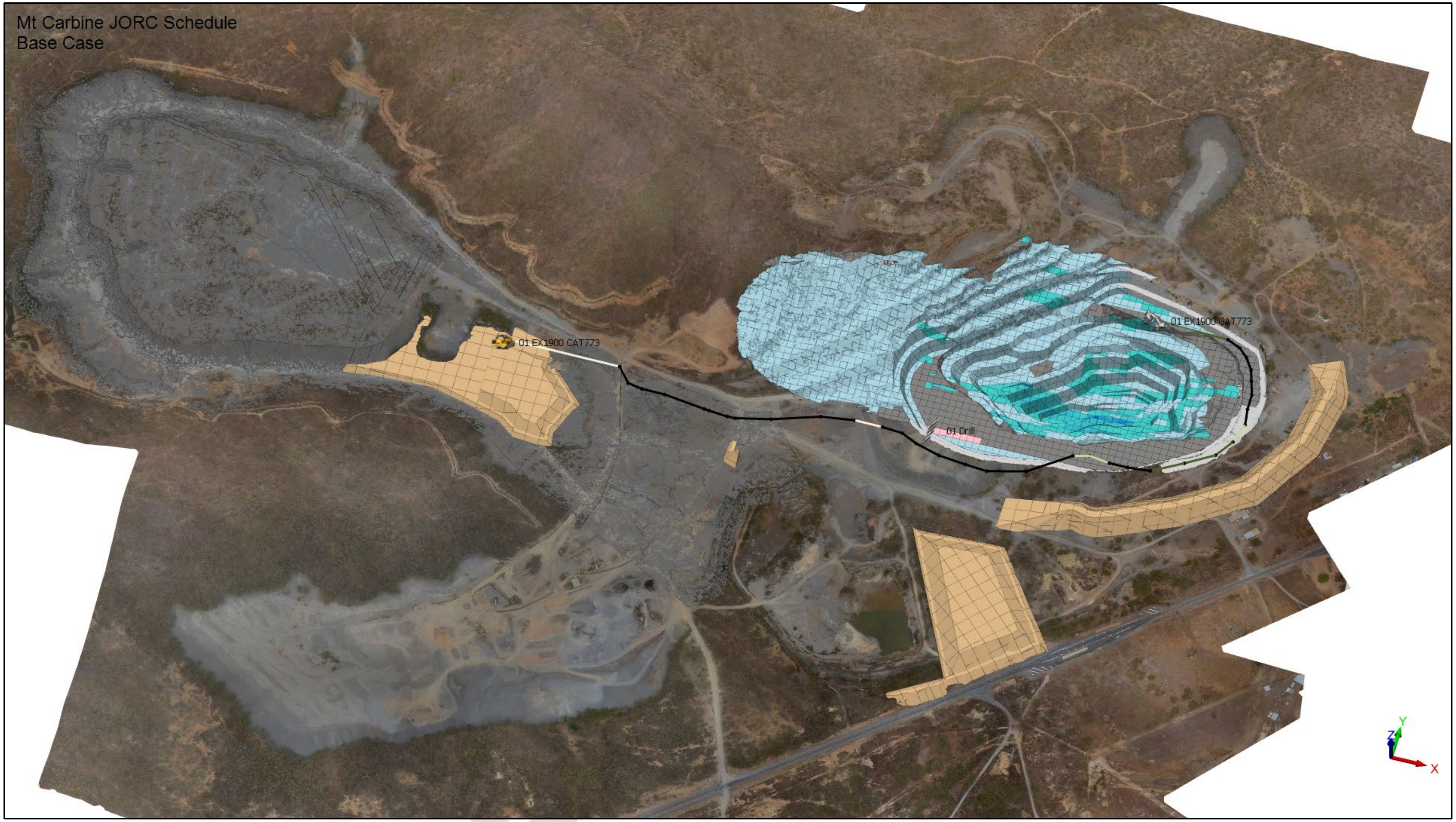

Figure 3-17 – Mine Status at end of FY2024

Figure 3-18 – Mine Status at end of FY2025

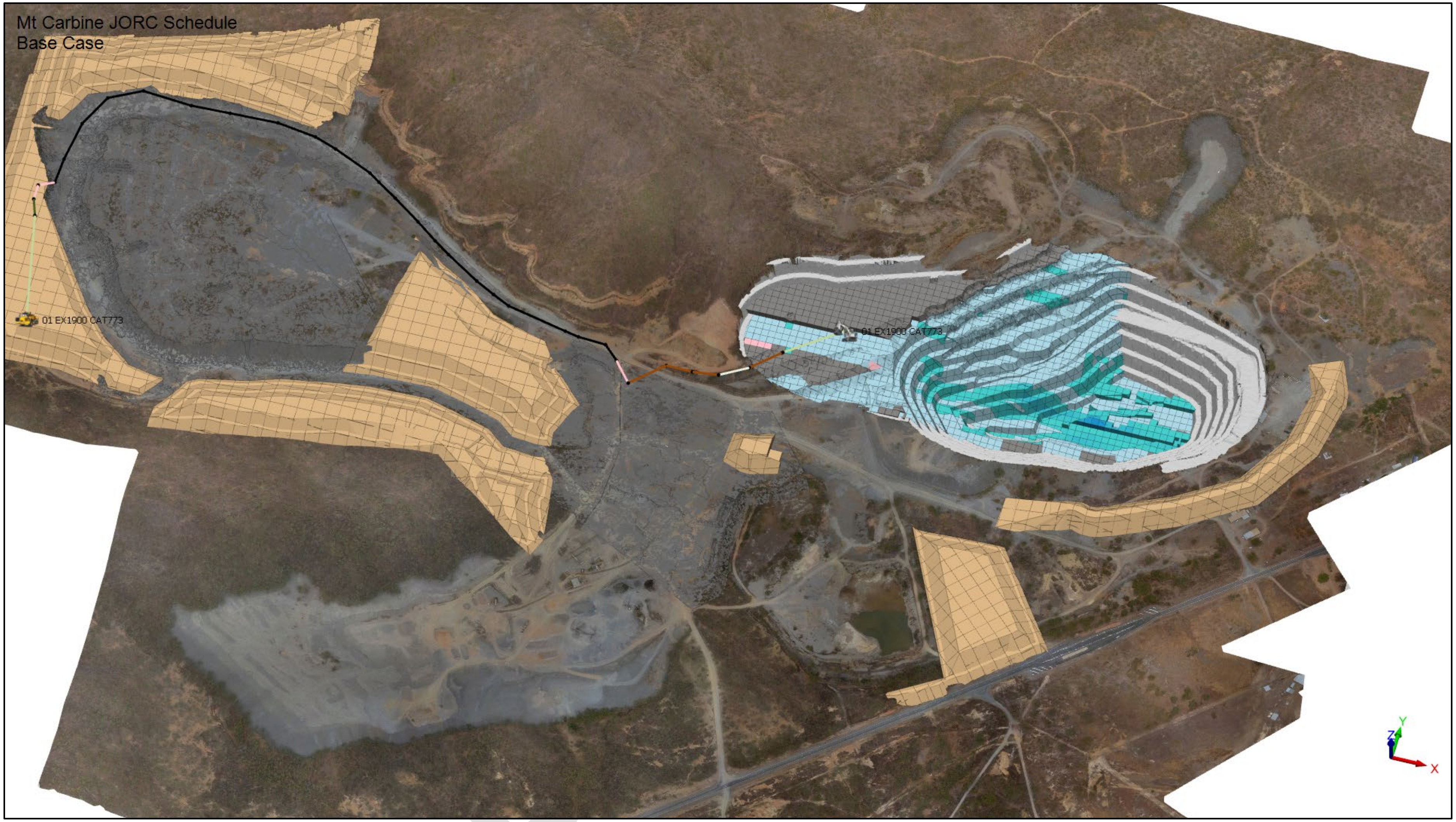

Figure 3-19 – Mine Status at end of FY2026

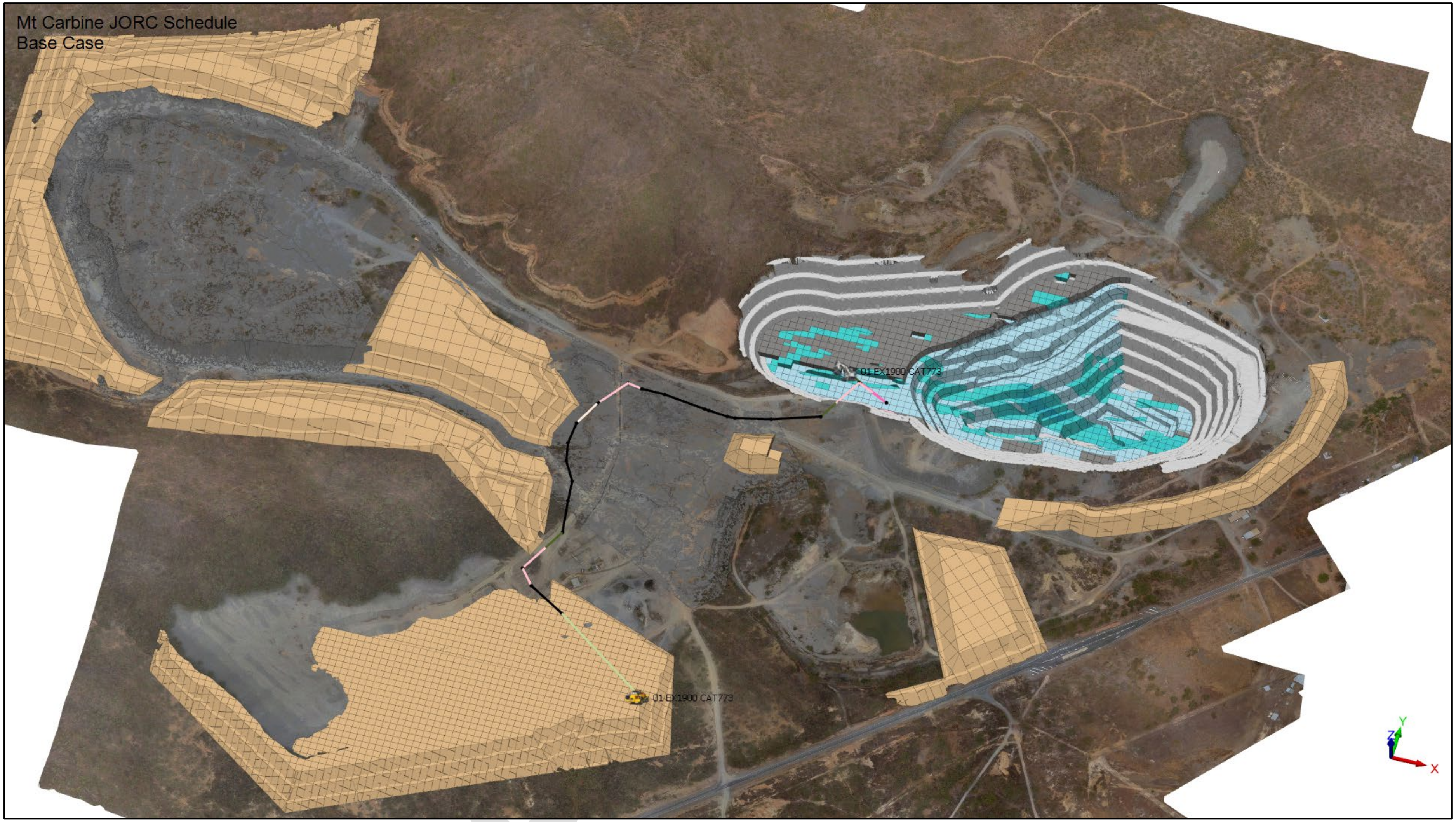

Figure 3-20 – Mine Status at end of FY2027

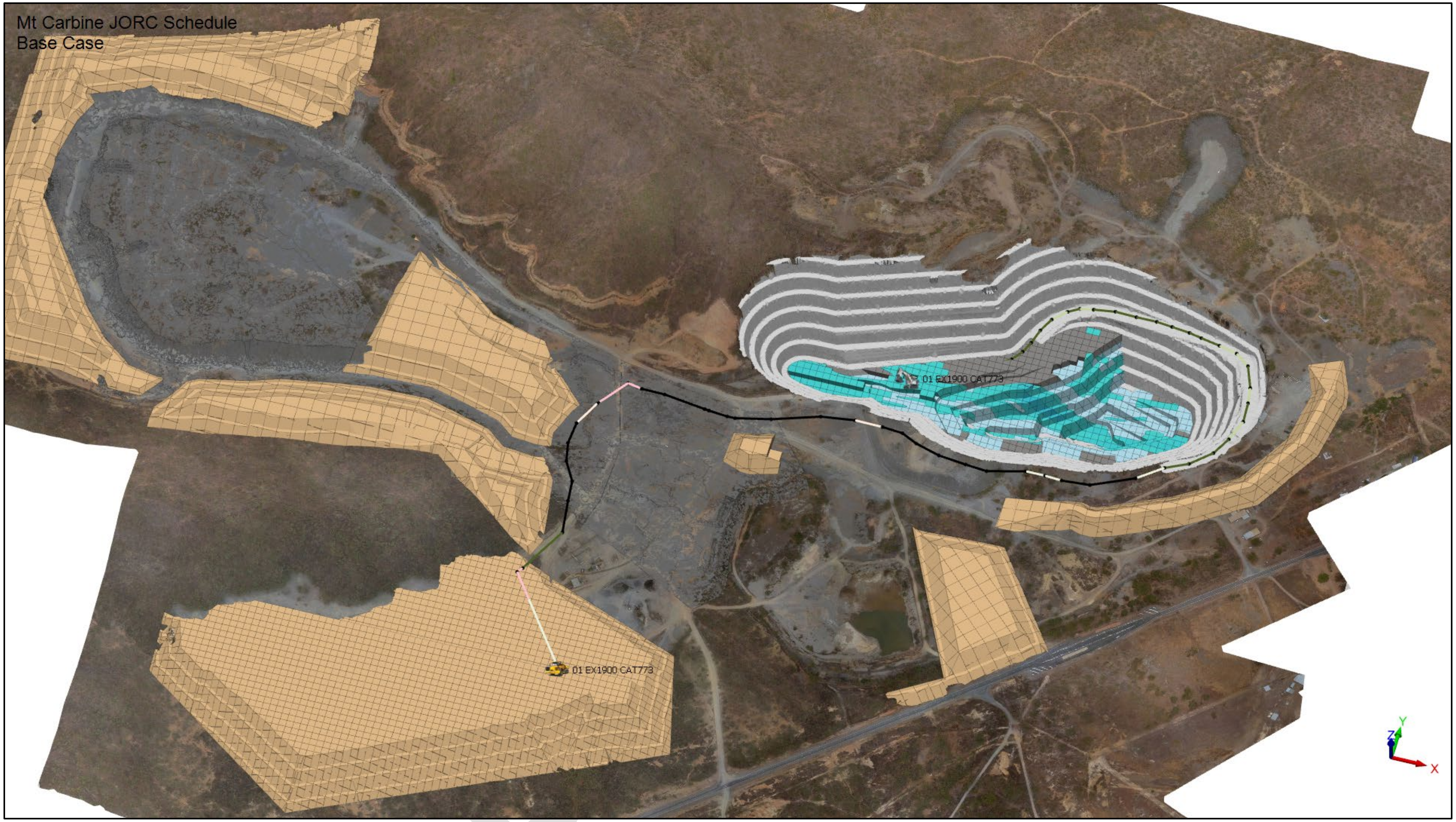

Figure 3-21 - Mine Status at end of FY2028

Figure 3-22 – Mine Status at the end of FY2029

4. FINANCIAL MODELLING

4.1 Financial Assumptions

A financial model was compiled based on the physicals generated from the detailed schedule. The financial modelling was based on a contractor operation undertaking all mining and processing activities with EQR providing the management and administrative roles. The details of the unit costs applied in the financial model are sensitive and have not been disclosed in this report.

Allocations for initial capital estimates were generated from a combination of sources including:

- feasibility level information for processing infrastructure,
- feasibility level information for the upgrade of power and water infrastructure,
- Market capital costs for mining equipment,
- Estimate decommissioning and mine closure costs,
- Contractor mobilisation and demobilisation.

4.2 Mining and Processing Unit Costs

4.2.1 Cost Assumptions

Unit costs have been supplied by EQ Resources for current operational practices, Golding Contractors for open pit mining and Ausenco for processing costs of the upgraded facilities.

Processing costs were based on historical performance at Mt Carbine as well as feasibility level assessments completed by Ausenco and Mincore on the proposed upgraded processing facilities.

Application of all operating costs, both fixed and variable, and State Government Royalties results in an average production cost of approximately AU$8,547 per concentrate tonne across the life of the mine.

4.2.2 Revenue Assumptions

Revenue assumptions are based on the forecast for ammonium paratungstate (APT) price starting at US$340/mtu (metric tonne unit, 1mtu=10kg) in 2023 increasing to US$376/mtu in 2029 with a AUD:USD exchange rate of 0.67 applied. The final realised price for each tonne of 50% WO_3 concentrate used in the financial model is AU$17,761 in 2023 increasing to AU$19,642 in 2029. This includes a 70% payable rate of the WO_3 in the APT.

Despite currently generating income from the sale of quarry material, this revenue has not been included in the financial model for the valuation of these Ore Reserves.

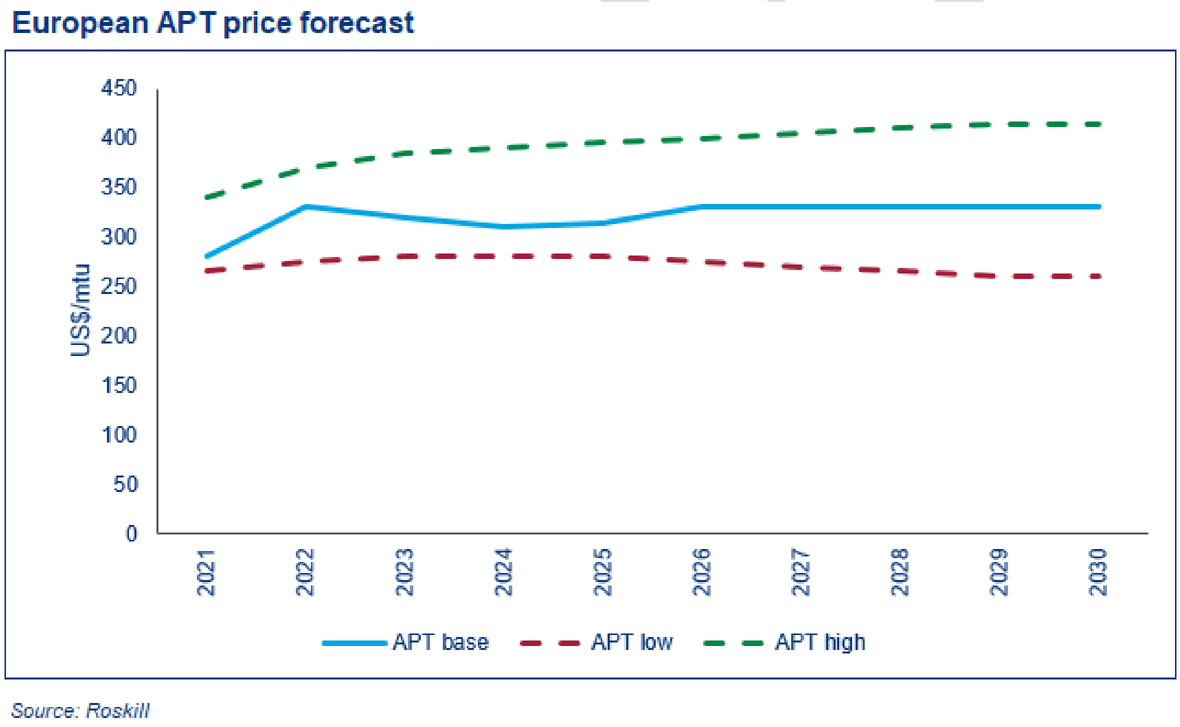

Figure 4-1 – APT price forecast

Current off-take agreements consider the following potential deleterious elements:

- Sulphur
- Tin
- Molybdenum
- Lead
- Arsenic
- Water

None of the above elements have been modelled in either the low-grade stockpile or open-pit geological models. However, forecast sale prices, which align with current off-take agreements, apply a substantial penalty to the benchmark tungsten concentrate price reflecting the potential presence of deleterious elements which Mt Carbine concentrate may contain. Historically, Mt Carbine has produced concentrate with relatively high levels of arsenic, however the processing plant proposed by Ausenco contains an arsenic removal module which will be used when levels of this element become too high.

Historically, Mt Carbine concentrate has been sold to customers in several locations including Europe, the United States, Vietnam, and China reflecting the acceptance of the product in the open market.

4.3 Financial Results

Monthly and annual cash flows were generated based on operating costs, forecast capital costs and sales price being applied to the scheduled mining and processing physicals. This confirmed overall positive cashflows for the life of the project.

The competent person is satisfied that the proposed mining activities within the mine plan which underpins the Ore Reserve estimate are economical to mine and process.

5. RESERVE ESTIMATE

5.1 Reserve-Resource Clarification

All Ore Reserves have been classified as Probable Reserves which are subsets of areas of Indicated Resources category.

5.2 Physical Limits

The physical limits of the open pit and low-grade stockpile Ore Reserves are shown in Figure 5-1 and Figure 5-2 respectively.

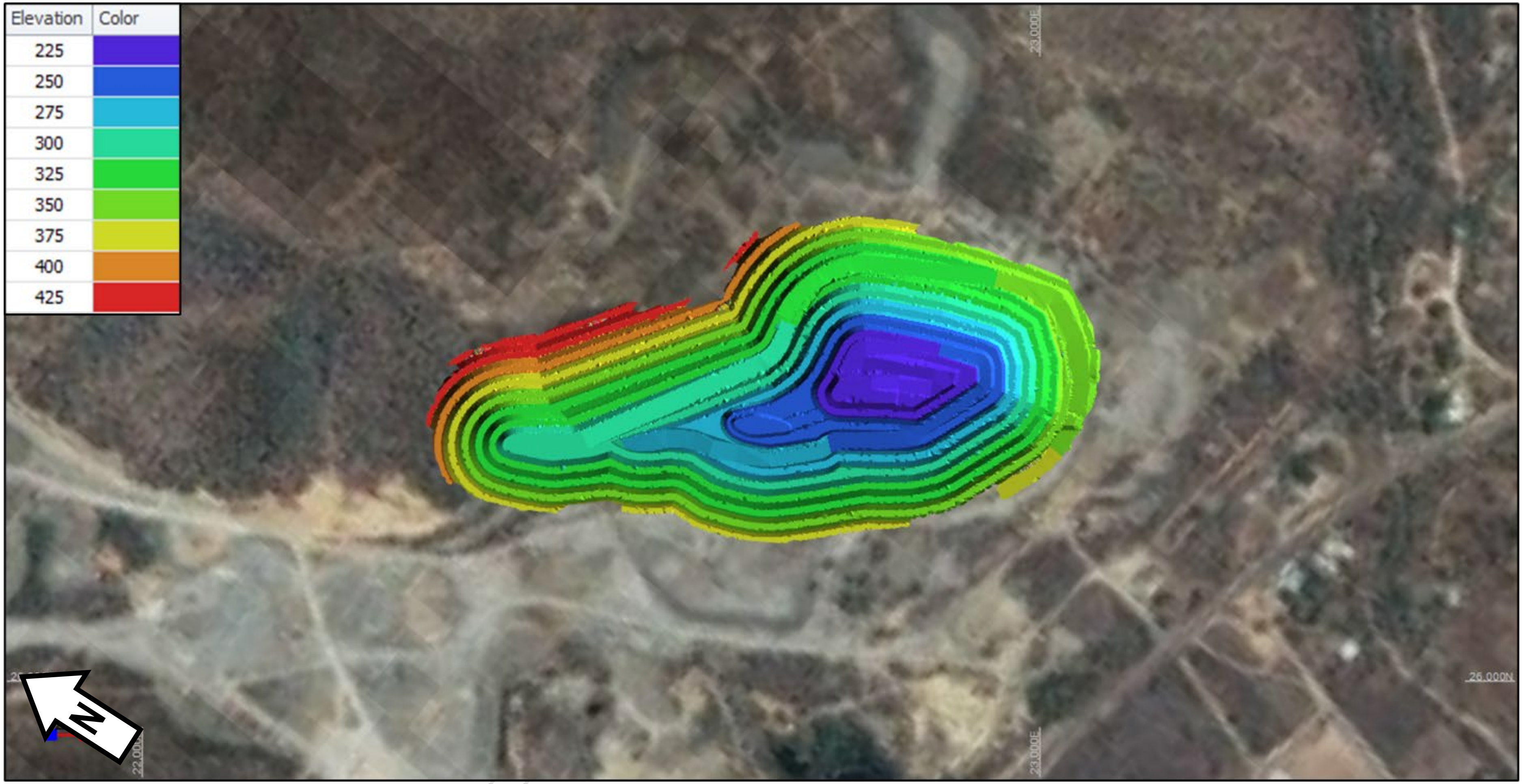

Figure 5-1 – Open Pit Ore Reserve Limits

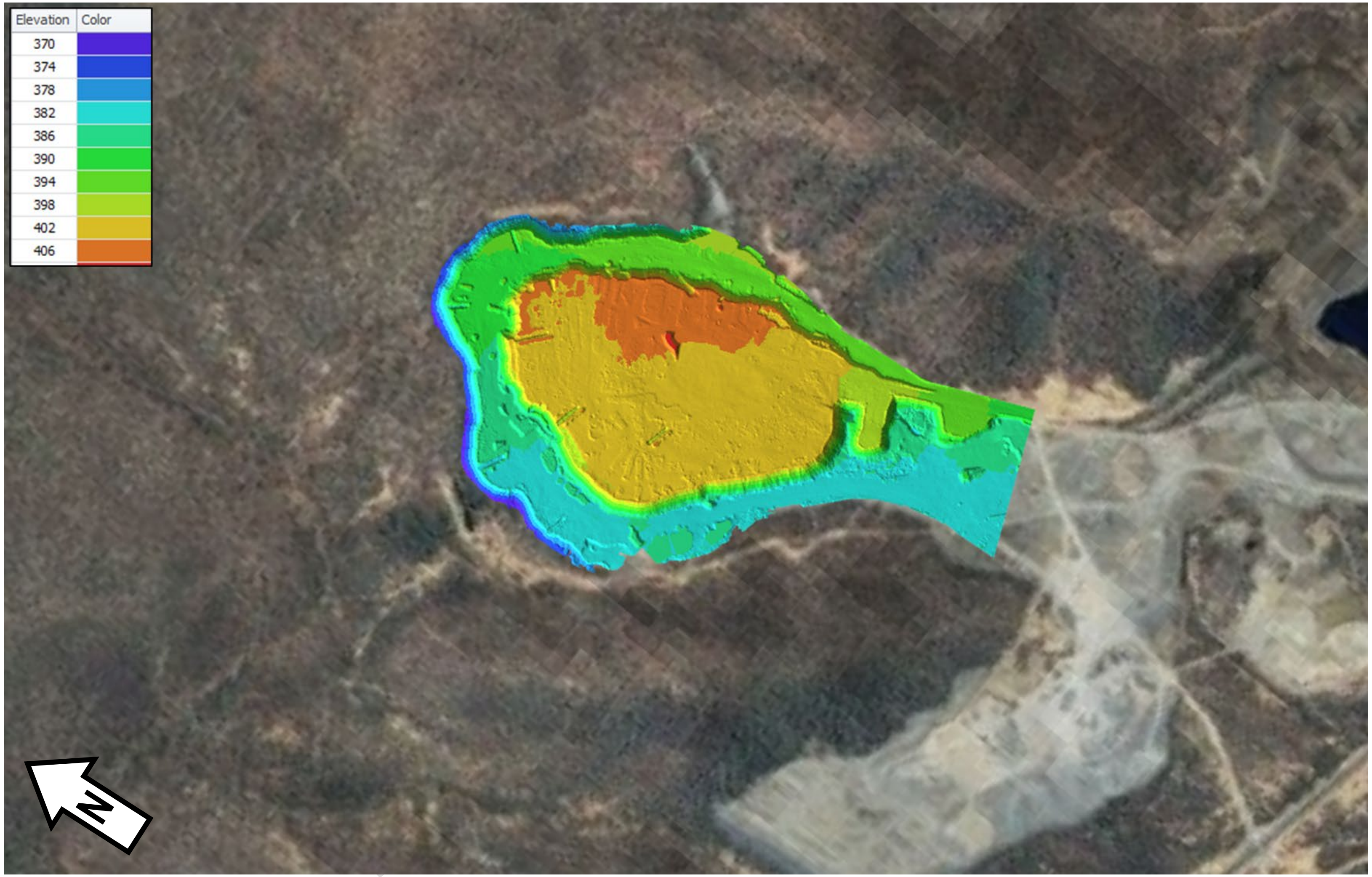

Figure 5-2 – Low Grade Stockpile Ore Reserve Areas

5.3 Ore Reserves

The estimated Ore Reserves for the open pit and low-grade stockpile are presented in Table 5.1 and Table 5.2 respectively.

Table 5-1 – Mt Carbine Project – Low Grade Stockpile Reserves Estimate

Reserve Category	ROM Tonnes (Mt)	WO_3 %
LGS - Proved	0	-
LGS - Probable	9.77	0.075%
LGS - Total	9.77	0.075%

Table 5-2 – Mt Carbine Project - Open Cut Reserves Estimate

Reserve Category	ROM Tonnes (Mt)	WO_3 %
Open Pit - Proved	0	-
Open Pit - Probable	5.93	0.28%
Open Pit - Total	5.93	0.28%

** Tonnages in the above table are expressed on a ROM basis, incorporating the effects of mining losses and dilution.*

5.4 Accuracy of Estimate

Small differences may be present in the totals due to tonnage information being rounded so as to reflect the usual uncertainty associated with the estimate.

5.5 Comparison with Previous Ore Reserve Estimate

Table 5-3 compares this Ore Reserve estimate with the previous Ore Reserve estimate that was released in September 2022.

Table 5-3 – Comparison with Previous Ore Reserves

	Sept 2022 Reserves		May 2023 Reserves	
	ROM Tonnes (Mt)	WO_3 %	ROM Tonnes (Mt)	WO_3 %
LGS	10	0.075%	9.77	0.075%
Open Pit	3.5	0.33%	5.93	0.28%
Total	**13.5**		**15.70**	

The Ore Reserves have increased by 2.20Mt which can be attributed to the upgrade in the Mineral Resource Estimate as shown in Table 5-4 and Table 5-5. This increase in the Mineral Resources has also resulted in the economic pit footprint increasing to the north west (Figure 5-3).

Table 5-4 – 2022 Mineral Resource Estimate

OREBODY	RESOURCE CLASSIFICATION	TONNES (MT)	GRADE (WO_3 %)	WO_3 (MTU)
Low-Grade Stockpile	Indicated	12	0.075	900,000
In Situ	Indicated	12.04	0.27	3,296,800
	Inferred	8.28	0.40	3,281,500
	Total	*20.32*	*0.32*	*6,578,300*
All	**Total**	**32.32**		**7,478,300**

Table 5-5 – 2023 Mineral Resource Estimate

OREBODY	**RESOURCE CLASSIFICATION**	**TONNES (MT)**	**GRADE (WO_3 %)**	**WO_3 (MTU)**
Low-Grade Stockpile	Indicated	10.126	0.075	759,450
In Situ	Indicated	18.06	0.30	5,405,901
	Inferred	10.68	0.30	3,217,311
	Total	*28.74*	*0.30*	*8,623,212*
All	**Total**	**38.87**		**9,382,662**

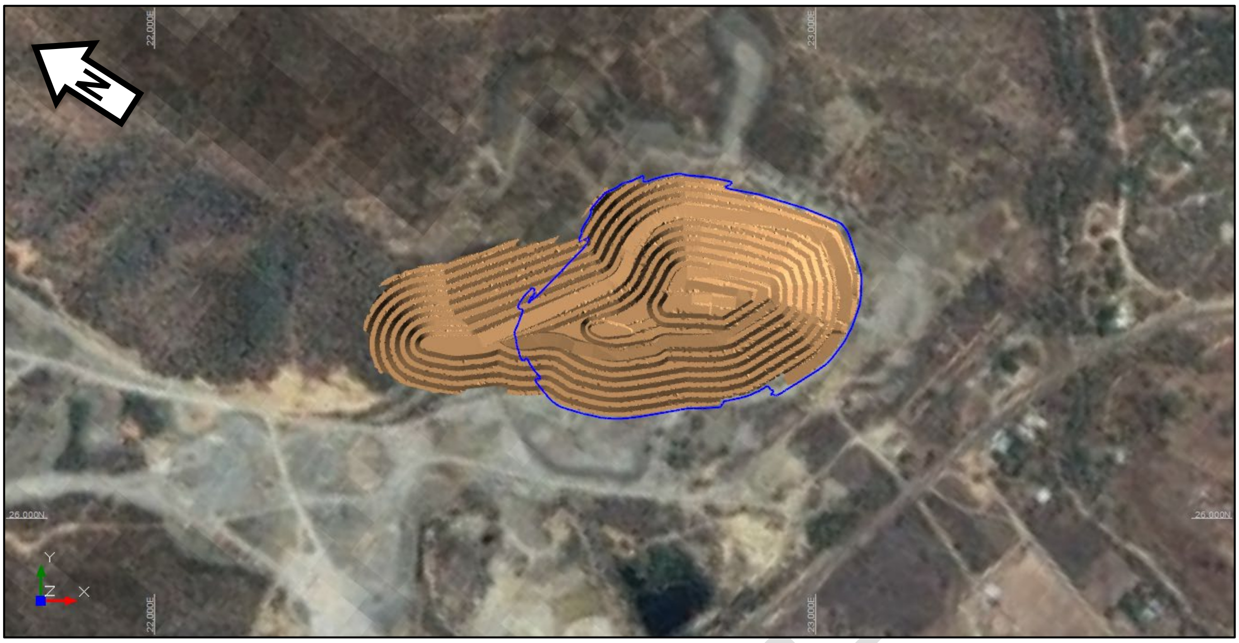

Figure 5-3 – Comparison of 2022 JORC Pit Crest (Blue) with 2023 JORC Pit Shell

APPENDIX A SECTION 4 OF TABLE 1 OF THE JORC CODE (2012)

Section 4 Estimation and Reporting of Ore Reserves

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 have been based on two separate block models, one for the low-grade stockpile and the other for the open pit operation. • The geological model used to develop the final low-grade stockpile resource model was generated by Measured Group Pty Ltd in August 2021 and is titled 'Mt_Carbine_LGS_20210820.bmf'. • The geological model used for the open pit operation was developed by EQR in April 2023. • The Mineral Resources are inclusive of the Ore Reserves.
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 competent persons visited site on 6th September 2022 and was provided access to all areas to see how the LGS stockpile reclaim works were progressing along with the processing infrastructure upgrades.
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.*	• Mining studies have been completed to a FS level of detail, with a detailed mine design cut into three phases and subdivided into 3.5m high benches. • The designed pit solids were intersected with the latest geological model and then adjusted for loss and dilution. • A bench-by-bench schedule was compiled with the in situ, ROM and product information for each dig solid analysed in a financial model. • Upgrades to the processing equipment have been completed to a FS level of detail. • Key performance parameters such as unit operating costs, metallurgical parameters, etc. have been based on historical performance at site where practical or contractor quotes.

Criteria	JORC Code explanation	Commentary
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• A cut-off grade of 0.075% WO_3 has been applied for calculation of the Reserve within the low-grade stockpile. • A cut-off grade of 0.05% WO_3 has been applied in the open pit geological model, however after loss and dilution calculations are completed, the final feed grade to the processing plant is as low as 0.08%. • A cut-off grade analysis has indicated that these two parameters are conservative and generate sufficient cash flows.
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 optimisation 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 (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (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 utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	• Mining of the low-grade stockpile is currently being undertaken by a 50t excavator and fleet of 45t articulated dump trucks. • Front end loaders with, ~6m^3 buckets, will be used around the crushers, screens, ore sorters and for general clean up. • Mining of the open cut operation will be completed in three phases. • The open pit will be mined with 1 x 190t class excavator, with a 11m^3 bucket and a fleet of 55t rigid rear dump trucks or 45t articulated trucks. A secondary 50t excavator, fitted with a ~3m^3 bucket, will also be used where required. The fleet will move up to 4.5Mt of waste and ore annually. • The open pit operations will be supported by ancillary equipment including a grader, water cart and dozers. • A 3m^3 bucket on the secondary excavator will allow the excavator to selectively mine the relatively thin orebodies and keep dilution quantities to a minimum. • All waste and ore will be drilled and blasted at a powder factor of approximately 0.8 kg/bcm of material. • Due to the vertical nature of the orebodies, grade control will be paramount. It is proposed to complete grade control via a combination of mapping, face sampling and grade control drilling, utilizing mostly angled holes. • Open-pit ramps have been designed at 10% maximum gradient at a width of 20m. • Geotechnical parameters for the majority of the open pit are

Criteria	JORC Code explanation	Commentary
		based on the existing pit's design which has performed well and remained relatively unchanged since mining stopped in the 1980s. The key geotechnical parameters for the open pit wall are: ○ Batter height - 20m ○ Batter angle - 70 degrees ○ Berm width - 8m • Currently, the only known area of geotechnical risk exists on the southern wall near the south wall fault. A geotechnical analysis of this wall indicates that the current pit design will require rock bolting at close intervals to minimise the probability of this wall causing geotechnical disruptions. Capital and operating cost allowances have been made in the financial assessment to monitor and treat this wall as it is exposed in the final wall. The two upper benches in the south wall, which are located in weathered material, have been excavated at 50 degrees and 57 degrees as specified by the geotechnical assessment.
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 test work 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 test work 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?*	• The low-grade stockpile at Mt Carbine is processed through a combination of crushers, screens, an ore sorter and wet plant circuits to generate a concentrate containing approximately 50% WO_3. **Existing Infrastructure** • The existing crushing and screening flowsheet consists of two stages crushing and dry screening circuits to produce two products: 1. –6mm wet plant feed 2. +6mm, -40mm ore sorter feed • Run of mine (ROM) ore (-700mm) is reclaimed from the low-grade waste stockpile and is delivered to the fixed jaw crusher. The jaw crusher has a closed side setting of -75mm. The jaw crusher discharge belt transfers primary crushed ore onto a 900mm wide screen feed conveyor. The screening plant consists of a mobile fitted with two decks to split the

Criteria	JORC Code explanation	Commentary
		feed into two streams: 1. Oversize (+40mm) to the cone crusher circuit 2. Undersize (-6mm) to the -6mm stockpile • The secondary cone crusher discharge is fed onto a belt conveyor and recirculates back to the sizing screen for separation into product sizes. • The existing ore sorter consists of a single hopper feed point, dry screen to dress ore before the ore sorter and a single ore sorter. The ore sorter circuit produces two products: 1. Rejects 2. +6mm, -40mm ore sorter oversize that is crushed by a cone crusher to -6mm for feed into the processing plant. • Ore is fed into the existing processing plant and onto a wet screen which separates the -6mm material and the +6mm material. The +6mm material is sent back to the ore sorter for processing. • The -6mm particles are pumped to a pulse jig where the high density, tungsten bearing particles are concentrated and pumped to a secondary wet screen with 0.8mm panels on the screen. The +0.8mm particles are fed to a rolls crusher and then pumped back to the front of the screen while the -0.8mm sized material is dewatered and sent to six shaking tables. • The shaking tables produce a rougher concentrate which is pumped to a final cleaner table. The tailings from the rougher tables are pumped back to the screen, to be jigged once more to minimise losses and increase recovery. The cleaner table produces a final concentrate which is bagged immediately. The tailings from the cleaner table are pumped back to the secondary screen, to undergo sizing and crushing once more to ensure minimal losses. • A significant amount of data is available on the metallurgical performance of the existing processing infrastructure.

Criteria	JORC Code explanation	Commentary

		New Infrastructure
		• The existing ore sorter will be upgraded to accommodate the proposed increase in annual ore tonnage. The treatment rate will be 80 tph to achieve an annualised throughput of 525,600 tonnes.
		• The upgraded ore sorter circuit flowsheet has been prepared by Mincore, a minerals processing and engineering consultancy.
		• Additional processing infrastructure, which will allow the site to mine up to 1mtpa of ore, has been designed and costed (both capital and operating) by Ausenco in 2021, a multinational engineering consultancy firm, to PFS-level of detail.
		• The proposed additional processing infrastructure will process ore at a rate of 60tph.
		• Historical performance data plus results of metallurgical test work completed by the Sustainable Minerals Institute in 2021 has been referenced when analysing the performance of the ore sorter.
		• Historical performance data plus results of laboratory metallurgical testing completed by Ausenco as part of the plant expansion project has been referenced when analysing the performance of the processing plant.
		• Current off-take agreements consider the following potential deleterious elements:
		  ○ Sulphur
		  ○ Tin
		  ○ Molybdenum
		  ○ Lead
		  ○ Arsenic
		  ○ Water
		• None of the above elements have been modelled in either the low-grade stockpile or open-pit geological models. However, forecast sale prices, which align with current off-

Criteria	JORC Code explanation	Commentary
		take agreements, apply a substantial penalty to the benchmark tungsten concentrate price reflecting the presence of deleterious elements which Mt Carbine concentrate may contain. Historically, Mt Carbine has relatively high levels of arsenic and the processing plant proposed by Ausenco contains an arsenic removal module which will be used when levels of this element become too high. Historically, Mt Carbine concentrate has been sold to customers in several locations including Europe, the United States, Vietnam, and China reflecting the acceptance of the product in the open market.
Environmen-tal	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation 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.*	• The site currently has all required environmental approvals to mine, crush and screen material from the pit. The mine and quarry activities occur on previously disturbed lands. • The surrounding land use is rural-urban (Mount Carbine township), low-intensity cattle grazing, mining and exploration, and conservation (the Brooklyn Nature Refuge). • The background land tenure (Lot 13 on SP254833) is Brooklyn Nature Refuge, which is held by the Australian Wildlife Conservancy as a rolling term lease – pastoral (Title Reference 17664140); a special condition of this lease is to allow quarry material to be removed. • There are no wetlands of national or international significance mapped in the project site or the receiving environment. • There are no High Ecological Value Waters (watercourses), High Ecological Value Waters (wetlands) or Wetlands of High Ecological Significance mapped in the project site or the receiving environment. • Waste rock has historically shown minimal to no acid producing potential. Waste rock characterization has not been completed at Mt Carbine, therefore selective placement of this material has not been included as part of the

Criteria	JORC Code explanation	Commentary
		scheduling and haulage modelling work.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	• Mt Carbine is an operational site and is supported by well-established infrastructure for the current mine and quarrying operations. Current facilities include offices, laboratory, ablutions as well as crushing, screening and processing facilities. • Mt Carbine's current processing facilities can process ore at approximately 60tph, however this will be increased to accommodate the planned 1Mt of ore mined annually. Capital costs for the required crushing, screening and processing infrastructure have been estimated to a FS level of detail and included in the overall economic evaluation of the site. The competent persons are satisfied that enough detail has been included in the capital cost estimate for the new processing facilities. • Access to site has already been established via the Mulligan Highway which runs through the operation. • Power to the site is currently supplied via two supplies segregated by the Mulligan highway into east and west. The eastern side is supplied by a 315 kVA overhead transformer whilst the western side is supplied by a 1000 kVA pad mounted transformer. Power is distributed across the site by 22kV above-ground power lines. • Raw water for processing and operational activities is currently sourced from the open-pit. An alternate raw water storage will be confirmed in upcoming studies. A capital allowance for the establishment of a new raw water storage facility has been applied in the financial model. • Potable water is trucked to Mt Carbine and stored onsite in storage tanks for use at the site facilities.
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.*	• Capital costs have been estimated at a FS level of detail for all required infrastructure for a 1mtpa ore operation. Capital costs allocations include: ○ Crushing and screening upgrades,

Criteria	JORC Code explanation	Commentary
	• *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.*	○ Processing facilities upgrades, ○ Raw water facility construction, ○ Contractor facilities, ○ Contractor mobilization and demobilization, ○ Future studies, ○ Ongoing exploration. • Operating costs have been estimated based on a contractor-based operation with 1 x 190t class excavator, 1 x 50t excavator, a fleet of 55t rigid dump trucks and supporting ancillary equipment. All waste will be drilled and blasted by a down-the-hole service drill and blast contractor. • Processing costs have been estimated based on current operational costs for existing equipment and processes, such as tailings disposal, plus PFS-level estimates for new processing infrastructure. • A state government royalty equal to 2.7% of generated revenue has been included in the cost structure.
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 Reserves are based on a WO_3 APT price of US$340 per mtu with a AUD:USD exchange rate of 0.67 applied. • Historical realized price adjustment factors were then applied as well as discounts for producing a concentrate with 50% WO_3. • Despite currently generating income from quarry material, no revenue has been generated from this procedure as part of the economic evaluation of the Reserves.
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.*	• Tungsten carbide, which has hardness close to diamond, is the most popular form of tungsten. It is denser than steel and titanium, twice as hard as any steel grade, and has extremely high wear resistance. The product is widely used in construction, mining, and metal working applications and is forecast to continue to perform strongly on the global market. • Mt Carbine currently produces concentrate which is sold to

Criteria	JORC Code explanation	Commentary
		multiple locations around the world. • In 2020, approximately 84,000 metric tonnes of tungsten was produced globally with 69,000 metric tonnes sourced from China. Mt Carbine is forecast to product only 2-3 metric tonnes of tungsten annually which will not affect the global market.
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.*	• All costs and revenues which have been used in the financial model are in nominal terms with monthly cashflows calculated for the life of the operation being positive. • As Mt Carbine is an operating mine/quarry with significant existing infrastructure, capital expenditure is minimal and therefore the project is not sensitive to NPV discount rate. • The competent persons are confident that Mt Carbine will generate positive cash flows once the initial capital outlays are undertaken early in the schedule. The subsequent years generate enough free cash to adequately pay for the capital costs incurred in 2022/3.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• The project has good community engagement and has been discussed verbally with the local stakeholders, particularly the Mt Carbine Caravan Park, which stands to be the most impacted, and the response has been positive. • EQ Resources in accordance with its requirements pays Native Title Administration Fees to the Nguddaboolgan Native Title Aboriginal Corporation (NNTAC) and maintains regular dialogue and communication with any relevant information pertaining to its activities. • The underlying pastoral leases on which Mt Carbine is located are held by Australian Wildlife Conservancy on a parcel of land known as Brooklyn Wildlife Sanctuary. A positive relationship exists between EQR and Australian Wildlife Conservancy. There are no anticipated issues with the landholder in relation to the project. • The project does not involve any new significant infrastructure, and changes to the current mining methods

Criteria	JORC Code explanation	Commentary
		or other activities that could otherwise have a negative impact on the local community and stakeholders.
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.*	• The operation is contained within two mining leases: ML4867 & ML4919. Both mining leases have recently been approved to extend their term for another 19 years, with expiry now out to 2041 for both tenements. • The land relevant to the project site is used for quarry operations and mining activities as per the respective licenses - EA EPPR00438313 for the quarry and EA EPML00956913 for the mine. • All environmental, surface access and operating licenses have been acquired to allow for between 100,000 and 1,000,000 tonnes to be mined, crushed and screened per annum. • Processing through the existing proposed plant is approved for over 100,000 tonnes per annum.
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).*	• All Reserves have been classified as Probable as the Resources have been fully categorized as Indicated. There are no Measured Resources.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• The Reserve assumptions, calculations and financial modelling has been internally reviewed by a team of experts. • No external audits of the estimate have been completed.
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*	• The estimate of the Reserves at Mt Carbine has been derived from local assumptions based on historical and current performance indices at the site. • The cost of operating the open pit has been calculated from contractor quoted rates at the site.

Criteria	JORC Code explanation	Commentary
	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 recognised 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.*	