

AUSTRALIAN SILICA QUARTZ GROUP LIMITED

Queensland MGSi Quartz Projects - Update



Australian Silica Quartz Group Limited ('ASQ') provides the following update on its 100% owned Metallurgical Grade Silicon Quartz ('MGSi') Projects.

- The Quartz Hill MGSi Project, located 300km northwest of Townsville in Far North Queensland, contains the 17.3Mt MGSi quartz at 99.04% SiO₂ JORC 2012 resource¹ (refer Table 1).
- ASQ has been exploring the Quartz Hill MGSi Project under a Project Development Heads of Agreement ('HoA') with Private Energy Partners Pty Ltd, a wholly owned affiliate of Quinbrook Infrastructure Partners (Quinbrook').
- In late March 2025 ASQ furnished Quinbrook with an initial draft of the Scoping Study for discussion and feedback. It was identified that due to the iron and aluminum concentrations within the quartz, the expected product from Quartz Hill would not meet the updated Quinbrook specification which had been advised subsequent to the signing of the HoA. After a period of discussion and consideration of alternative approaches, ASQ delivered the final Quartz Hill MGSi Quartz Project Scoping Study ('Scoping Study') to Quinbrook on the 21st of May 2025 (refer Appendix 1 – Quartz Hill MGSi Quartz Scoping Study Summary).
- Under the terms of the Quartz Hill MGSi Project Heads of Agreement Quinbrook were required to elect whether to proceed to funding a Feasibility Study within 20 business days of ASQ delivering the Scoping Study to Quinbrook².
- After consideration of the Scoping Study, Quinbrook have advised the quartz grades from Quartz Hill are not suitable to meet 100% of the feedstock requirements of their proposed polysilicon manufacturing facility but may be suitable to blend with quartz from another source.
- Development of the Quartz Hill MGSi Project is now on hold as Quinbrook have elected not to proceed with funding the Feasibility Study and the HoA with Quinbrook was terminated on the 11th of June, 2025.
- Quinbrook are open to future engagement in relation to other sources of MGSi quartz within ASQ's extensive portfolio of North Queensland quartz occurrences. Any arrangement with Quinbrook in respect of other quartz sources will be the subject of a new arrangement.
- ASQ regard several large quartz bodies within its Queensland tenure as high priority MGSi quartz targets including the 1,500m long Mount Surprise Quartz Ridge where ASQ rock chip samples have returned grades to 99.98% SiO₂³.
- Exploration programs assessing these high priority MGSi Quartz targets are planned for the coming months.

20 June 2025

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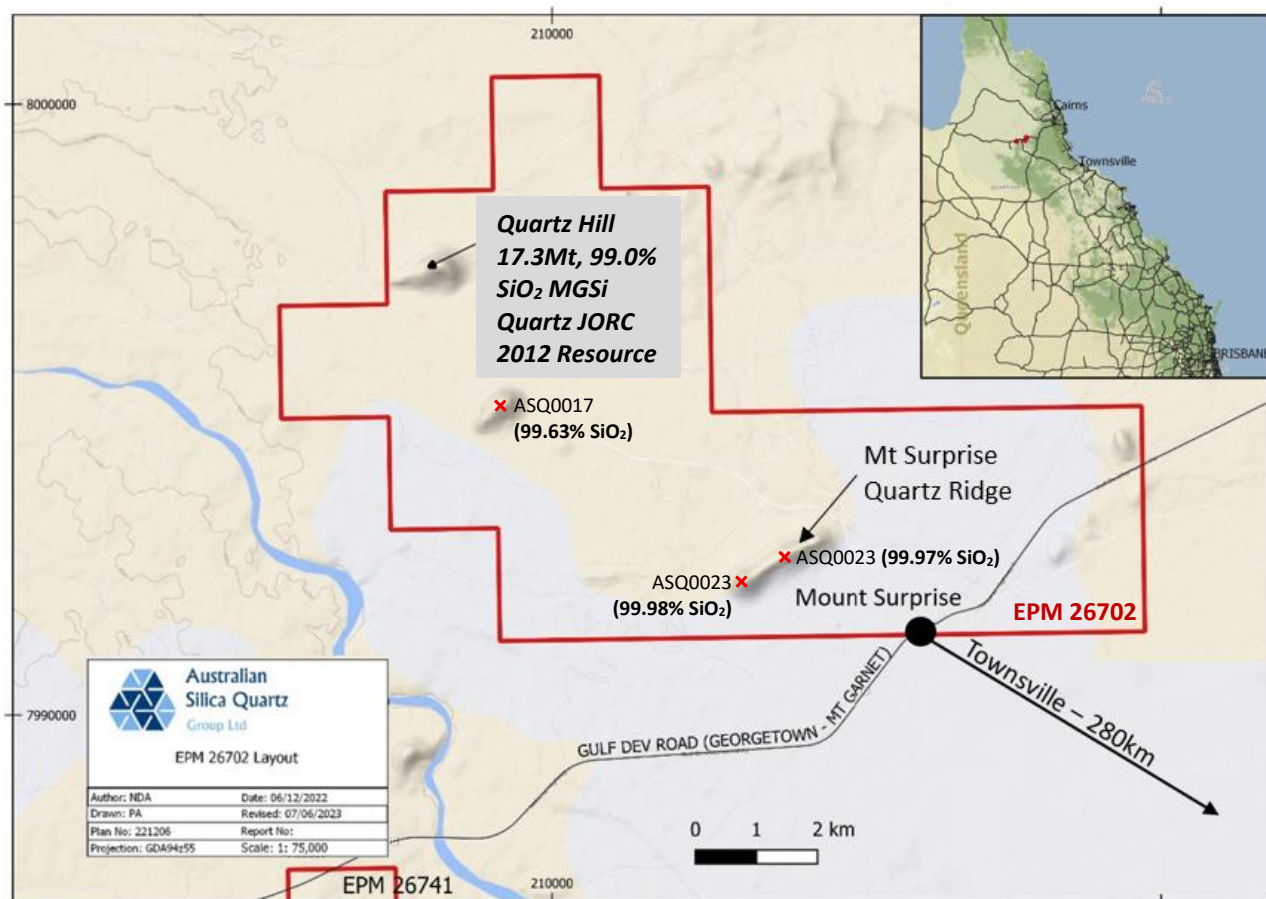


Figure 1: Quartz Hill MGSi Quartz Project Locality and Tenement Plan also showing Mt Surprise Quartz Ridge and previously released rock chip grades³

Table 1: Quartz Hill MGSi Project December 2023 Mineral Resource Estimate (>99% SiO₂ Cut-off)

| Class | Total Mineral Resource | | | | | | | | | | | | |
|--------------|------------------------|------------------|--------------------------------|--------------|--------------|--------------------------------|--------------------------------|--------------|--------------------------------|-------------------|-------------------------------|------------------|-------------|
| | Tonnage | SiO ₂ | Al ₂ O ₃ | BaO | CaO | Cr ₂ O ₃ | Fe ₂ O ₃ | MgO | Mn ₃ O ₄ | Na ₂ O | P ₂ O ₅ | TiO ₂ | ΣOxides |
| | Mt | % | % | % | % | % | % | % | % | % | % | % | % |
| Indicated | 7.6 | 99.09 | 0.67 | 0.003 | 0.005 | 0.001 | 0.16 | 0.008 | 0.005 | 0.023 | 0.005 | 0.033 | 0.91 |
| Inferred | 9.7 | 99.00 | 0.73 | 0.003 | 0.009 | 0.001 | 0.17 | 0.012 | 0.006 | 0.029 | 0.006 | 0.033 | 1.00 |
| Total | 17.3 | 99.04 | 0.70 | 0.003 | 0.007 | 0.001 | 0.17 | 0.010 | 0.005 | 0.026 | 0.006 | 0.033 | 0.96 |

This announcement has been approved for release by the Board

Please refer to the following announcements for further details on the Quartz Hill MGSi Quartz Project and related exploration results:

| Release Date | Announcement Title |
|--------------------------|--|
| ¹ 12 Dec 2023 | MAIDEN 17MT JORC RESOURCE AT 99.04% SiO ₂ AT QUARTZ HILL |
| ² 07 Jul 2023 | ASQ FINALISES EXCLUSIVE RIGHTS TO 10MT QUARTZ OFFTAKE |
| ³ 15 Dec 2021 | EXPLORATION AND RESEARCH UPDATE – HARDROCK HIGH PURITY QUARTZ AND SILICA |
| 19 Dec 2025 | QUARTZ HILL PROJECT - METALLURGICAL TESTWORK OUTCOMES |

Cautionary Statement

This announcement and information, opinions or conclusions expressed in the course of this announcement contains forecasts and forward-looking information. Such forecasts, projections and information are not a guarantee of future performance, involve unknown risks and uncertainties. Actual results and developments will almost certainly differ materially from those expressed or implied. There are a number of risks, both specific to ASQ, and of a general nature which may affect the future operating and financial performance of ASQ, and the value of an investment in ASQ including and not limited to title risk, renewal risk, economic conditions, stock market fluctuations, commodity demand and price movements, timing of access to infrastructure, timing of environmental approvals, regulatory risks, operational risks, reliance on key personnel, reserve estimations, native title risks, cultural heritage risks, foreign currency fluctuations, and mining development, construction and commissioning risk.

The Scoping Study referred to in this report is based on low-level technical and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised. The Mineral Resource underpinning the production target in the Scoping Study has been prepared by a competent person in accordance with the requirements of the JORC Code (2012). The Competent Person's Statement is found in Appendix 1 of this ASX release. For full details of the Mineral Resources estimate, please refer to ASQ ASX release dated 12 December 2023. ASQ confirms that it is not aware of any new information or data that materially affects the information included in that release. All material assumptions and technical parameters underpinning the estimates in that ASX release continue to apply and have not materially changed. The Scoping Study is based on material assumptions from the Quinbrook HoA that are no longer applicable due to the termination of the HoA and as such the expected product sale price and volume of sales may no longer be applicable. There is no certainty that the material assumptions will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved. To achieve the range of outcomes indicated in the Scoping Study, funding of in the order of \$2.5-7 million will likely be required. Investors should note that there is no certainty that the Company will be able to raise that amount of funding when needed. It is also likely that such funding may only be available on terms that may be dilutive to or otherwise affect the value of ASQ's existing shares. It is also possible that ASQ could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce ASQ's proportionate ownership of the project. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

QUARTZ HILL MGSi PROJECT – SUMMARY OF SCOPING STUDY OUTCOMES

The following summarises the outcomes of the Quartz Hill MGSi Project Scoping Study.

The Scoping Study was prepared and paid for by Quinbrook on the basis of the Quinbrook HOA where Quinbrook would purchase 350,000 tonnes of Quartz for a period of 10 years at a 10% discount to the market price of the MGSi Quartz or a value that delivers ASQ a reasonable market return. There is no reasonable publicly available data on market value for MGSi Quartz, and so in preparing this Scoping Study the Company used a reasonable market return deemed to be costs plus a margin of 20%. It was proposed Quinbrook would buy the MGSi Quartz from the mine gate, with no consideration in the Scoping Study given to transport of the product from the mine to Townsville or to any other customer.

Quinbrook has advised that the MGSi Quartz grades are not suitable to meet 100% of the feedstock requirements for their proposed polysilicon manufacturing facility to be built in Townville, and have terminated the HOA.

The reader is cautioned that at the present time the Company has not identified an alternative purchaser for the contemplated MGSi Quartz Lump product. In accordance with the requirements under Listing Rule 3.1 the Company includes the details of this study.

Scoping Study Overview

The scenario examined by the Scoping Study had ASQ developing the Quartz Hill MGSi Quartz Project, and supplying MGSi quartz to Quinbrook under an exclusive offtake agreement. Quinbrook has invested \$1 million

to fund exploration and development, securing rights to up to 10 million tonnes (Mt) of quartz feedstock at a discounted market price. The Scoping Study assessed the project's commercial, environmental, and operational viability at a level of detail equivalent to a +/-30% estimate.

Location & Geology

The project is located within ASQ's 100% owned EPM 26702, Mount Surprise, Queensland, approximately 200 km southwest of Cairns and 10km northwest of the township of Mount Surprise. Quartz Hill is a 1,300m-long ridge hosting a high-grade quartz deposit within Paleoproterozoic Einasleigh Metamorphics. Initial ASQ drilling programs in 2023 and 2024 confirmed a total resource of 17.3 Mt with an average silica content of 99.04% SiO₂, classified as Indicated (7.6 Mt) and Inferred (9.7 Mt) Resources under the JORC 2012 Code. There is a low level of confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

Mining & Processing

Proposed mining operations to use a truck-and-shovel method, with drill and blast required. The 350,000 tonnes per annum production target would supply MGSi feedstock to Quinbrook's planned silicon and polysilicon facility in Townsville. Processing would include crushing, screening, and optical ore sorting to remove impurities, with an expected product recovery rate of 48%.

Environmental & Regulatory Considerations

Key elements of the projects approvals would include:

- Mining Lease (ML) application.
- Land access agreements.
- Native Title agreements.
- Environmental approvals, with two possible pathways:
 - Pathway 1: Environmental Authority (EA) & separate EPBC Act referral.
 - Pathway 2: Environmental Impact Statement (EIS) & bilateral EPBC Act assessment.

Financial Analysis

- Capital Expenditure: Estimated between \$2.44 million and \$6.84 million.
- Operating Costs: Projected at \$27.5 million per year (Years 5-10).
- Profit Margin: ~20% on operating costs.
- Key Risks and Sensitivites: Product recovery rates and grades, market pricing uncertainties, and operational costs.

Project Timeline & Feasibility

The development phase is expected to take 16 months, assuming successful approvals by the EA pathway and land access negotiations. The feasibility of the project hinges on securing environmental approvals, achieving product yield consistency, and ensuring a fair product sale price.

Conclusion

Prior to the termination of the HoA with Quinbrook, the Quartz Hill MGSi Quartz Project presented a strategic opportunity for ASQ to supply the emerging silicon manufacturing sector. Key financial, operational, and regulatory risks would have needed to be addressed when progressing to a Definitive Feasibility Study (DFS).

Competent persons statement

The information in this document that relates to the Exploration Results and Scoping Study was compiled by Mr. Nick Algie in his capacity as Exploration Manager for Australian Silica Quartz Group Limited. Mr. Algie is a registered member of the Australian Institute of Mining and Metallurgy ('AusIMM') and has sufficient experience that is relevant to the type of deposit and style of mineralisation under consideration and sufficient experience in the development of mining projects from the studies phase through to the operational phase to qualify as a competent person under the 2012 edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Algie consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



Australian Silica Quartz Group Ltd

in cooperation with



QUARTZ HILL MGSi QUARTZ PROJECT

SCOPING STUDY EXECUTIVE SUMMARY

21 May 2025



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1. INTRODUCTION

Australian Silica Quartz Group Ltd ('ASQ') has entered an agreement to seek to supply Private Energy Partners ('PEP') with lump quartz from its Quartz Hill MGSI Quartz Project ('Project'). This Scoping Study explores the commercial, environmental and operational viability of the expected Project.

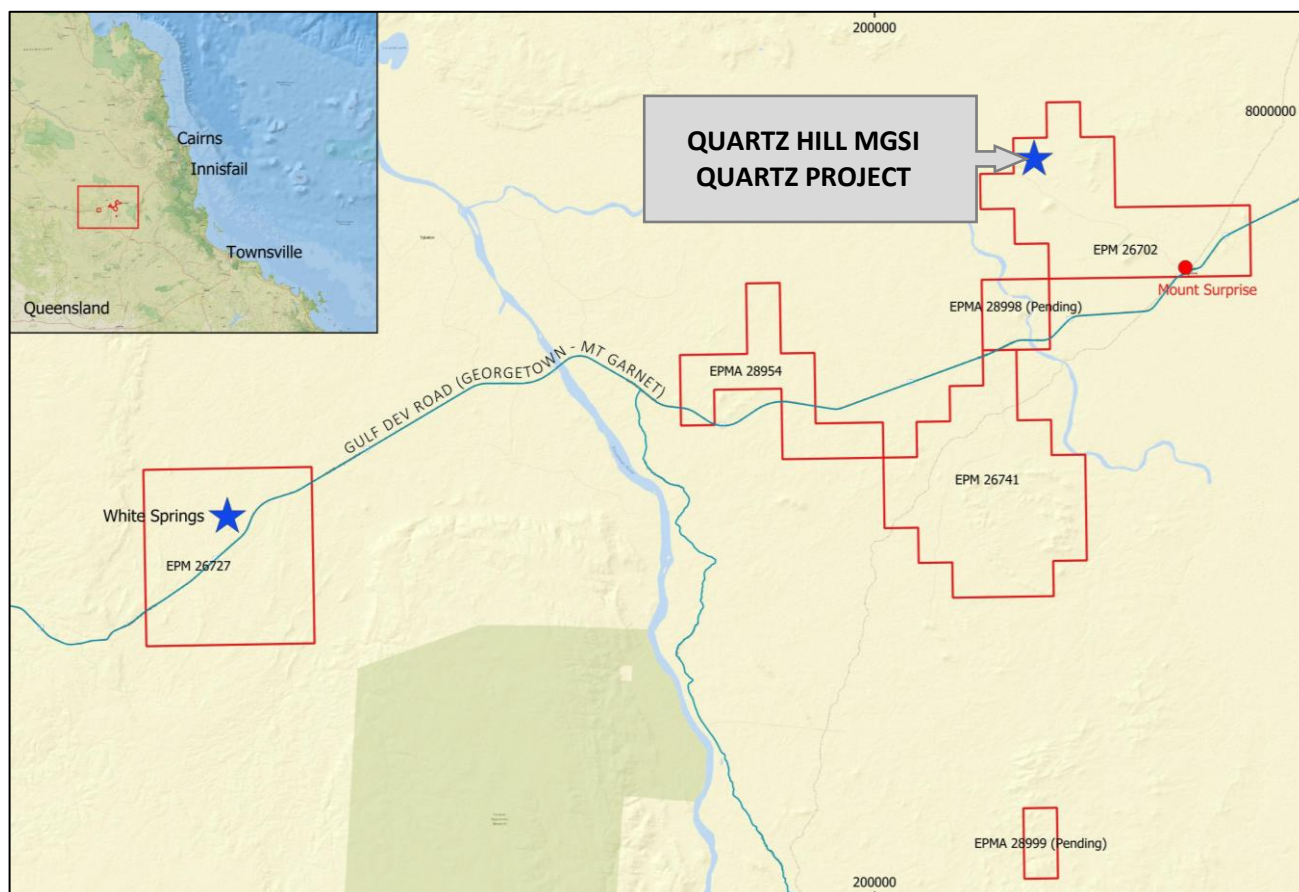


Figure 1: Quartz Hill MGSI Quartz Project Location Map

1.1 Agreement with PEP

ASQ received from PEP \$1m as contribution to the Quartz Hill exploration and development work and PEP will in return have exclusive rights to receive the offtake of up to 10Mt MGSI Quartz (Metallurgical Grade Silicon Quartz Lump feedstock) from the mine gate at 10% discount to the prevailing MGSI Quartz market price or such price that would constitute a fair market return to ASQ (whichever is the greater).

Under the terms of the Project Development Heads of Agreement ('HoA') ASQ used the funds received to:

- undertake an exploration drilling programme at Quartz Hill (completed in Q3 2023);
- establish a JORC 2012 MGSI Quartz mineral resource of at least 10Mt (completed Q4 2023);
- complete this Scoping Study; and
- apply for a mining lease.

Within 20 Business Days of delivery of this Scoping Study, PEP must confirm that it either:

- elects to proceed to fund preparation of a Definitive Feasibility Study for the MGSI Quartz Project; or
- elects not to proceed to fund preparation of a Definitive Feasibility Study for the MGSI Quartz Project, in which case the Exclusive Rights shall lapse.

Following completion of a Definitive Feasibility Study on the MGSi Project PEP, at its election, may then enter into a Binding Offtake Agreement to purchase 10Mt MGSi Quartz over a period not exceeding 31 years.

1.2 Location

The Project is located on EPM 26702 within Mount Surprise Station, approximately 200 km southwest of Cairns and 290km northwest of Townsville in Far North Queensland, Australia within the Etheridge Shire and in the Georgetown Region of the Northern Mining District.

Access from Townsville is west on the Hervey Range Road and then north on the Gregory Development Road turning west on the Gulf Development Road. From the township of Mount Surprise Obrien's Creek Road bisects the tenement. Current access to the project area from the public roads is via station tracks.

Access from Cairns is on the Gilles Highway to Atherton then south on National Highway 1 (Kennedy Highway) and finally turning west on the Gulf Development Road.

The Project is situated at the northern end of EPM 26702, immediately east of the O'Brien's Creek Road, approximately 10km northwest of Mount Surprise.

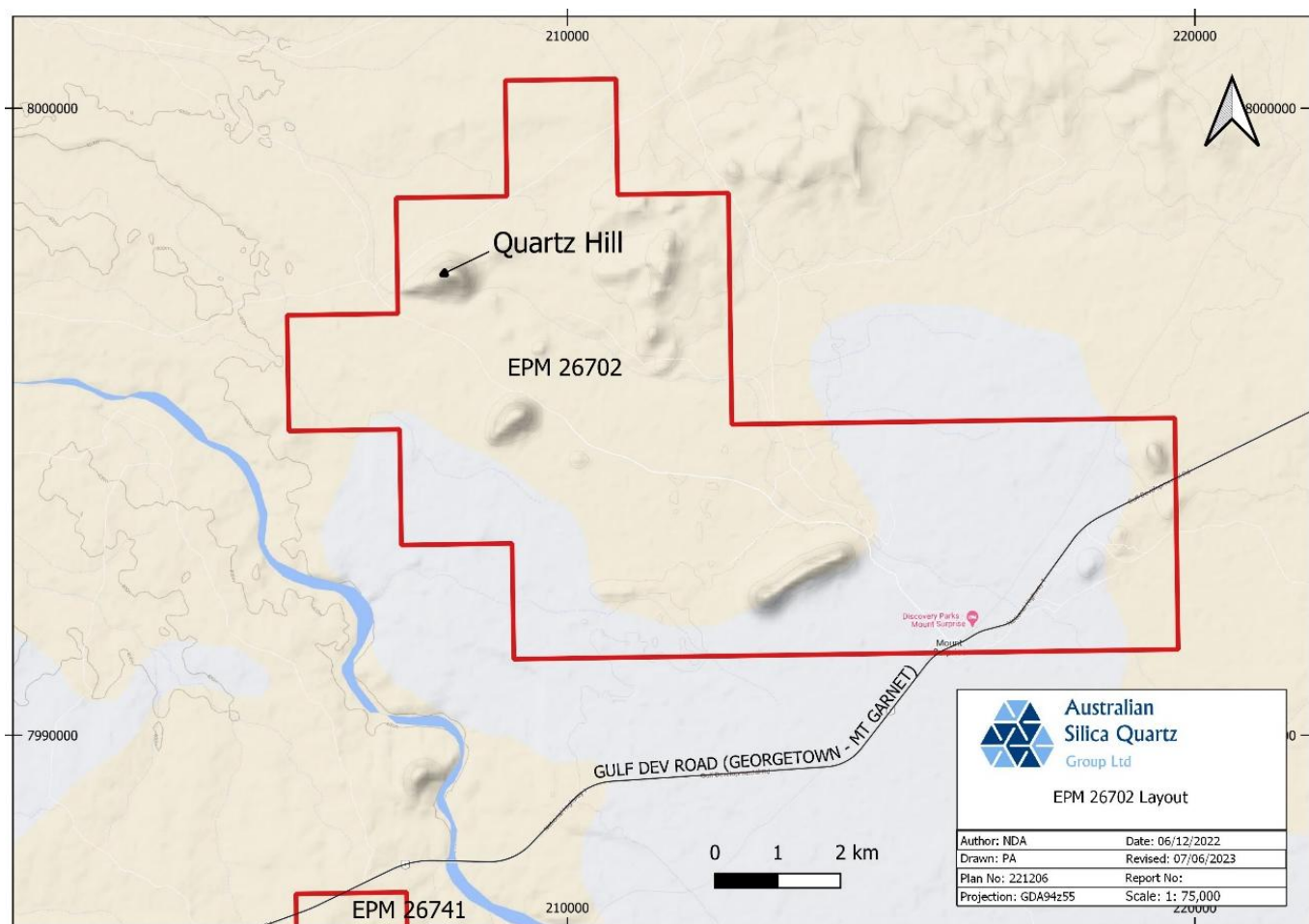


Figure 2: Quartz Hill MGSi Quartz Project Locality and Tenement Plan

1.3 Climate

The area is essentially a semi-arid tract with a wet summer and dry winter. The bulk of the yearly rainfall, of approximately 800mm, falls during December to March when summer storms and the north-west monsoonal influence affect the area. Field exploration in this period is severely restricted and it is expected that mining operations will be challenging during the wet season. The mean daily maximum temperatures from October to December are around 34 to 35°C and in winter range from 27 to 29°C.



1.4 Physiography

The topography of the area is generally flat apart from Quartz Hill and other hills to the south and east. The subdued terrain lies some 390m to 420m above sea-level with several pronounced hills and ridges rising to 500 to 560m. The landscape is dissected by an open textured dendritic drainage pattern, with the NW to W trending Elizabeth Creek passing close to the southern and western sides of Quartz Hill.

1.5 Vegetation

The area is covered by mixed tropical savannah vegetation comprising open woodlands and various grasses, with thickets of rubber vine, a class 2 pest plant, adjacent to some sections of major drainage channels. Quartz Hill appears to have pre-existing extensive infestations of weedy grasses and annuals.

1.6 Geology

The outcropping Quartz Hill occurrence is hosted within the Paleoproterozoic aged Einasleigh Metamorphics. The Einasleigh Metamorphics consists of migmatites grading into gneissic granite and schist. Quartz Hill is a very large, 1,300m long ridge elevated up to 140m in vertical elevation above the surrounding flatter country dominated by continuously outcropping rubbly quartz forming the core of the steep-sided ridge. The quartz lodes are thought to have been formed from the processes of metamorphism, due either to pre-existing siliceous rocks being definitively metamorphosed, or quartzitic material being produced by metamorphic processes.

1.7 MGSi Quartz

MGSi Quartz is defined as lump quartz feedstock suitable for the manufacture of metallurgical grade silicon. High grade quartz is required by the solar silicon manufacturing industry as a precursor feedstock for the production of MGSi. ASQ is working with Quinbrook Infrastructure Partners (“Quinbrook”) to assess Quartz Hill as a source of MGSi feedstock. Quinbrook is a long-term investor in renewable energy infrastructure assets and businesses essential for the clean energy transition and wishes to both secure and decarbonize the supply chain for photovoltaic module manufacturing. Quinbrook has plans to establish metallurgical silicon and polysilicon manufacturing facilities at the Lansdown Eco-Industrial Precinct in Townsville, Queensland.

2. QUARTZ HILL MINERAL RESOURCE

Ashmore Advisory Pty Ltd completed a Mineral Resource estimate for the Quartz Hill MGSi Project in November and December 2023. The Mineral Resource was estimated in accordance with the 2012 Edition of the ‘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 Geoscientists and Minerals Council of Australia. Therefore, it is suitable for public reporting.

2.1 Drilling

ASQ conducted a maiden drilling program consisting of 14 reverse circulation (“RC”) holes for 1,499m during 2023. Drilling at the deposit extends to a vertical depth of 150m and the mineralisation was modelled from surface, up to a depth of approximately 160m below surface. The estimate is based on RC drilling. Drill hole spacing is predominantly 200m by 50m.

2.2 Results

Results of the independent Mineral Resource estimate for the Project are tabulated in the Statement of Mineral Resources in Table 1 and shown in detail in Appendix 1. The Statement of Mineral Resources is reported in line with requirements of the 2012 JORC Code and is therefore suitable for public reporting.

Table 1: Quartz Hill MGSi Project December 2023 Mineral Resource Estimate (>99% SiO₂ Cut-off)

| Class | Total Mineral Resource | | | | | | | | | | | | |
|--------------|------------------------|-----------------------|-------------------------------------|--------------|--------------|-------------------------------------|-------------------------------------|--------------|-------------------------------------|------------------------|------------------------------------|-----------------------|--------------|
| | Tonnage Mt | SiO ₂ % | Al ₂ O ₃ % | BaO % | CaO % | Cr ₂ O ₃ % | Fe ₂ O ₃ % | MgO % | Mn ₃ O ₄ % | Na ₂ O % | P ₂ O ₅ % | TiO ₂ % | ΣOxides % |
| Indicated | 7.6 | 99.09 | 0.67 | 0.003 | 0.005 | 0.001 | 0.16 | 0.008 | 0.005 | 0.023 | 0.005 | 0.033 | 0.91 |
| Inferred | 9.7 | 99.00 | 0.73 | 0.003 | 0.009 | 0.001 | 0.17 | 0.012 | 0.006 | 0.029 | 0.006 | 0.033 | 1.00 |
| Total | 17.3 | 99.04 | 0.70 | 0.003 | 0.007 | 0.001 | 0.17 | 0.010 | 0.005 | 0.026 | 0.006 | 0.033 | 0.96 |



Note:

The Mineral Resource has been compiled under the supervision of Mr. Shaun Searle who is a director of Ashmore Advisory Pty Ltd and a Registered Member of the Australian Institute of Geoscientists. Mr. Searle has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code.

All Mineral Resources figures reported in the table above represent estimates as at December 2023. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.

Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition).

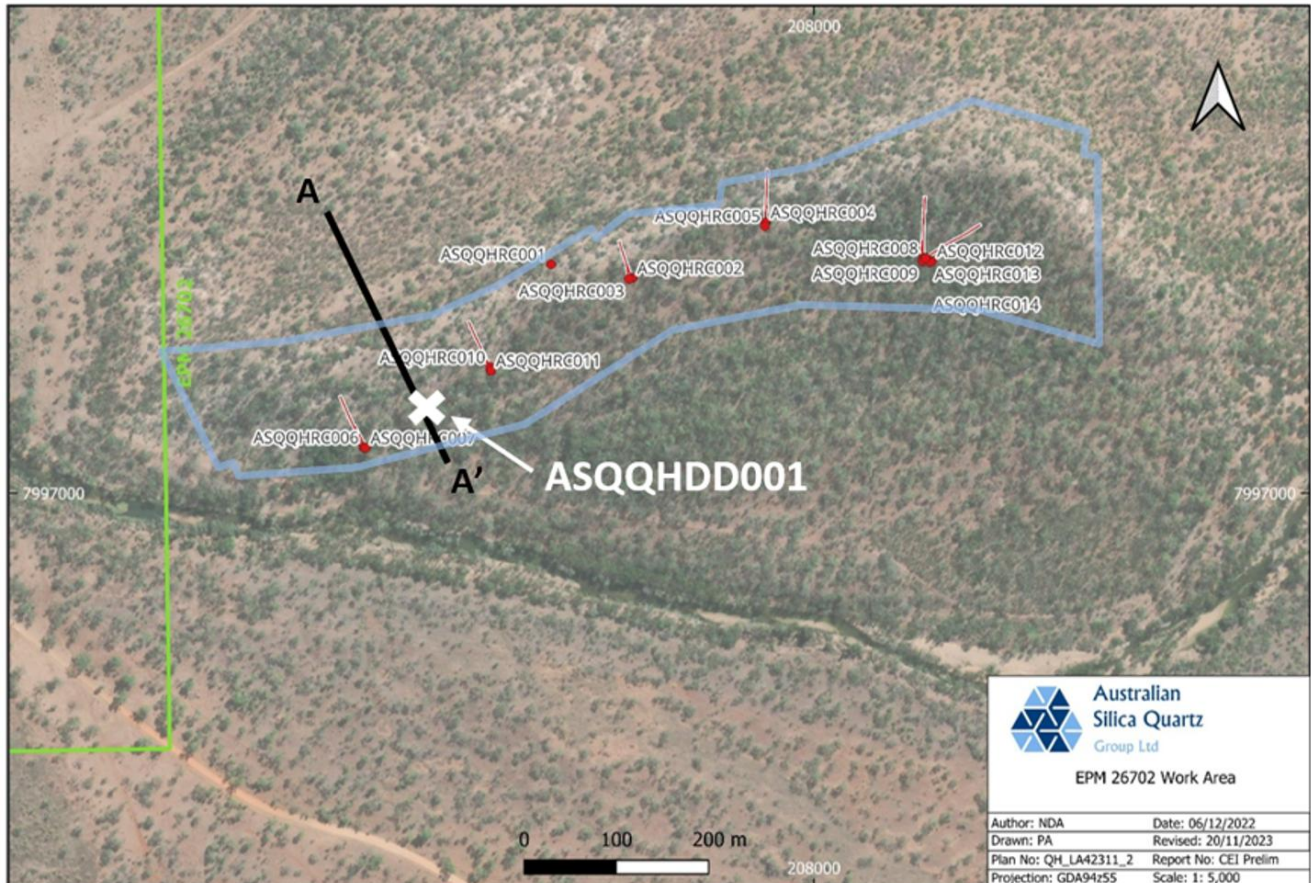


Figure 3: Quartz Hill 2023 RC Drill Holes, 2024 Diamond Drill hole and Resource Outline (pale blue)

2.3 Block Model

A block model was created in Surpac software. The mineralisation was constrained by wireframes prepared using logged quartz geology as well as down hole geochemistry where calculated silica grades were generally greater than 97 to 98%. Zones of internal dilution (<97% SiO₂) were wireframed separately within the main quartz units and interpolated separately.

The block dimensions used in the model were 40m EW by 5m NS by 5m vertical with sub-cells of 2.5m by 1.25m by 1.25m. The parent block size was selected based on Kriging Neighbourhood Analysis, while dimensions in other directions were selected to provide sufficient resolution to the block model in the across-strike and vertical direction.

2.4 Density

Bulk density values were assigned in the block based on similar geological terrains, with assigned values of 2.6 to 2.65t/m³ for the quartz units dependent on weathering.



2.5 Digital Terrain Model

Measure Australia (Townsville) have completed a LiDAR and Photogrammetry survey by drone over 267Ha of the Quartz Hill MGSI Quartz Project area (refer *Figure 4*). This generated a Digital Terrain Model with +/-70mm vertical accuracy.

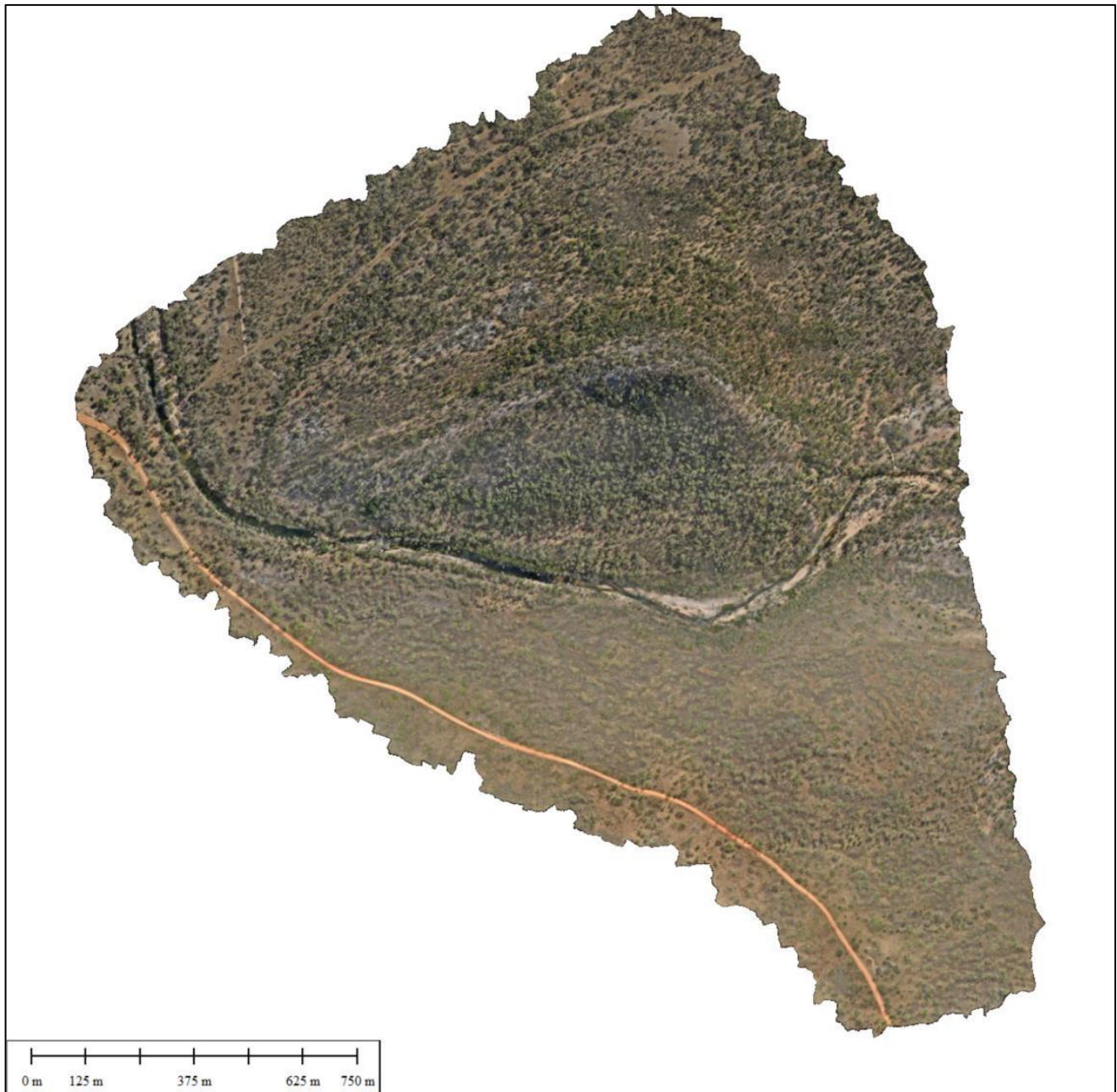


Figure 4: Quartz Hill LiDAR and Photogrammetry Survey Area

2.6 Classification

The Mineral Resource was classified as Indicated and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity. The Indicated Mineral Resource was defined within areas of closer spaced RC drilling of less than 200m by 50m, and where the continuity and predictability of the lode positions was good. The Inferred Mineral Resource was assigned to areas where drill hole spacing was greater than 200m by 50m, where small, isolated pods of mineralisation occur outside the main mineralised zones, and to geologically complex zones.



2.7 Metallurgical Testwork Program

Following reporting of the Quartz Hill Mineral Resource Estimate and subsequent discussions with Quinbrook, it was determined that the reported grade of the Quartz Hill resource would not meet the required parameters of acceptable quality MGSI quartz product for the solar industry unless the Al_2O_3 and Fe_2O_3 content was lower than what was reported in the resource. A review of the Quartz Hill drilling showed zones of higher-grade quartz. A single diamond drill hole was completed at the site of ASQQHRC10/11 to provide sample material for ore sorting trials. The diamond core was cut in half length ways with one half retained as a permanent record. The other half was broken by hand to lumps of size +20-100mm. After screening the sample was scrubbed for one hour in a plastic bowl cement mixer, screened again and washed before shipping to TOMRA in Sydney for optical sorting trials. Preliminary testing by TOMRA identified a requirement for the sample to be processed using colour-based sensor sorting. TOMRA did not have colour-based sorter in Australia so they shipped the samples to their facility in Germany. As the sorted samples were already in Germany the decision was made to have the analysis done by Anzaplan who are highly experienced in testing quartz.

Table 2: Quartz Hill Ore Sorting Testwork Program - Outcomes

| | Yield* | SiO_2 | Fe_2O_3 | Al_2O_3 |
|---|--------|----------------|-------------------------|-------------------------|
| Mineral Resource: | | | | |
| Quartz Hill 17.3Mt Resource | | 99.04 | 0.17 | 0.70 |
| Metallurgical Testwork Products: | | | | |
| 19-100mm Scrubbed (no sorting) | 80% | 99.23 | 0.08 | 0.47 |
| 19-100mm Low Grade Sorted Cut | 67% | 99.26 | 0.07 | 0.46 |
| 19-100mm High and Medium Grade Sorted Cut + 50-100mm Low Grade Sorted Cut | 48% | 99.32 | 0.06 | 0.42 |
| +19-100mm Medium Grade Sorted Cut | 43% | 99.32 | 0.06 | 0.42 |
| 19-100mm High Grade, + 50-100mm Medium Grade Sorted Cut | 32% | 99.38 | 0.06 | 0.38 |
| +19-100mm High Grade Sorted Cut | 18% | 99.40 | 0.05 | 0.37 |

*Yield is the calculated deportment of the full sample prior to any processing

The testwork results indicate that a range of quality quartz lump can be produced from Quartz Hill at varying yields. The ore sorting is particularly effective at reducing key silicon manufacturing contaminants iron and aluminium. This scoping study assumes the production based on a sorted cut equivalent to the high and medium grade cuts in both size fractions are combined with the low grade +50-100mm cut as highlighted in

Table 2.

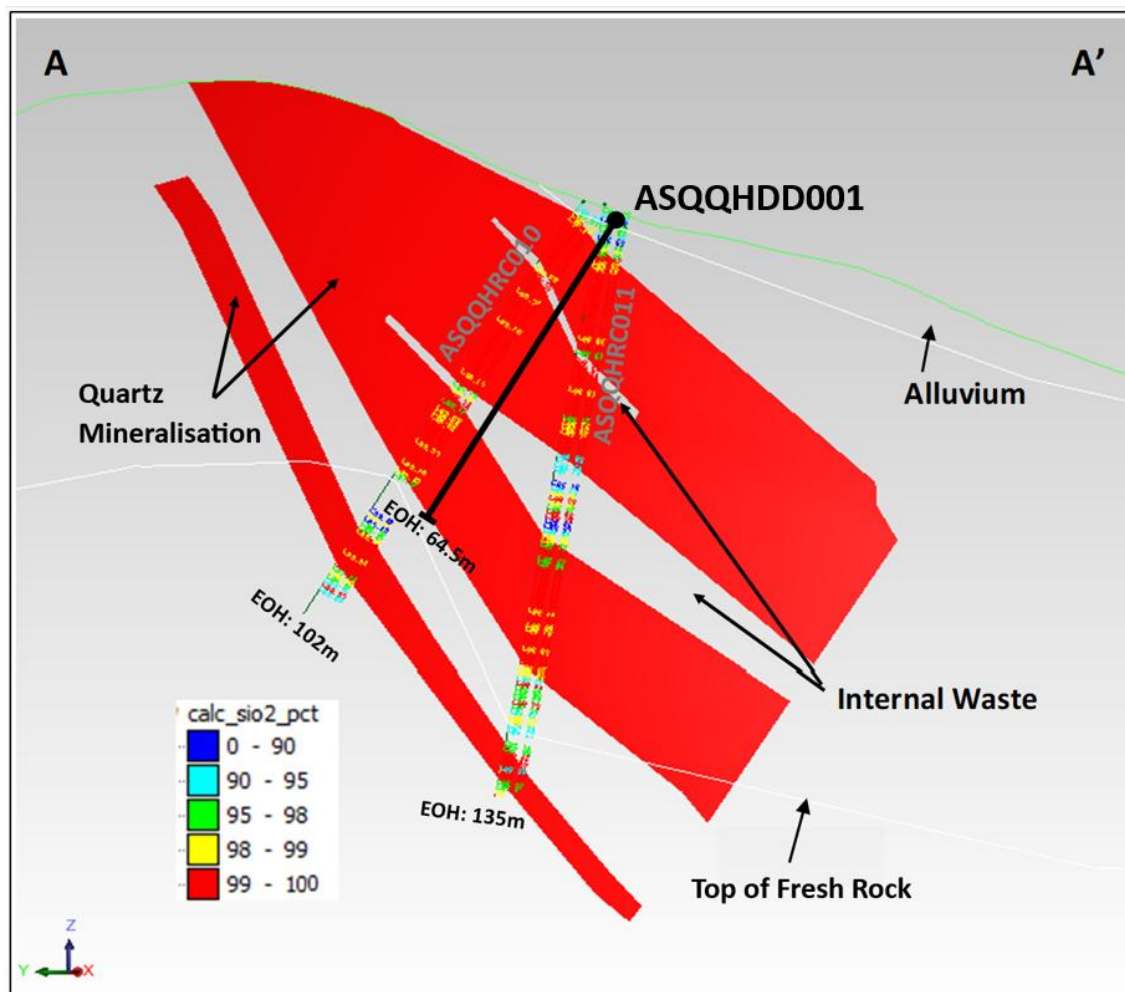


Figure 5: Cross Section of Quartz Hill Wireframes – Section 207600mE with Diamond Drill Hole ASQQHDD001

3. PROJECT DEVELOPMENT COMPONENTS

3.1 Tenure

3.1.1 Mining Authority

The Quartz Hill MGSi deposit lies within ASQ's Exploration Permit EPM 26702.

Table 3: EPM 26702

| Lease ID | Lease Name | Application Date | Grant Date | Expiry Date | Area | Current Year Commitment |
|-----------|-------------|------------------|------------|-------------|-------------------------------------|-------------------------|
| EPM 26702 | Mount Eliza | 8/11/2017 | 21/12/2018 | 20/12/2027 | 21 Sub Blocks - 68.1km ² | \$150,000 |

For mining to commence a Mining Lease (ML) application will first need to be approved covering the Quartz Hill Project Area.

It is understood the following components will be required in the ML application:

- mineral resource estimate reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC 2012) for the minerals that are planned to be mined on the ML;
- maps, cross-sections and diagrams that show the geology and resource areas with the respective resource classification;
- statements with maps that demonstrate the geological evidence for the mineral resource estimate categories within the area of the ML application;



- a statement regarding the method of proposed mining and associated metrics (e.g., machinery to be used, annual mining rate, ore and waste tonnages, strip ratios);
- a mine plan with maps (including mining schedule) for the area applied for the term of the ML.
- a statement about potential infrastructure requirements and a map of their location in relation to the area applied for;
- a statement on the economic viability of the proposed mining activities including why it is considered an acceptable level of development of the mineral resources within the area of the ML application; and,
- a statement with maps about environmental constraints and how they impact the size and shape of the application area applied for.

3.1.2 Native Title and Heritage Protection

Native Title to the entire project area was determined in November 2013. The determined group is the Ewamian People #3 represented by the Ewamian People Aboriginal Corporation (“Ewamian People”).

To date, no formal consultation with the Native Title Party on requirements for mining operations have been undertaken. There is a requirement to go through the Native Title process. A Section 31 agreement must be struck between the State, the Native Title Party and the Company. This agreement states that there is an ancillary agreement between the Native Title Party and the Company. Negotiations on the Native Title conditions are likely to include a Cultural Heritage Management Plan (CHMP) as an annexure to the ancillary agreement.

It is recommended that meetings are scheduled early in the projects development to initiate compensation negotiations and to scope any required heritage surveys and these surveys be completed as soon as practical to determine what measures might be required.

3.1.3 Environmental

In 2024 EMM Consulting undertook two phases of work aimed at identifying recommended approvals pathways for the Quartz Hill Project.

An initial desktop review was undertaken to identify the mapped environmental characteristics of the site (pre-field investigations). These mapped environmental constraints form the basis of future environmental investigations (and regulator engagement matters) in future work phases. The vegetation communities and habitat features mapped as present within the Project footprint, coupled with the results of a comprehensive desktop assessment, have identified that the Project footprint has the potential to support a number of flora and fauna species considered to be Matters of National Environmental Significance (MNES) and Matters of State Environmental Significance (MSES).

A field survey conducted between 12-16 February 2024 during the late wet season identified and characterised the presence, extent and condition of contemporary terrestrial ecological values using methods prescribed and/or supported by the Queensland and Commonwealth regulators. It is noted that:

- No MNES/MSES flora species or flora species habitat was identified during the field survey.
- The Semi Evergreen Vine Thicket (SEVT) ecological community, situated within the mine footprint, is listed as an ‘of concern’ under the Queensland *Vegetation Management Act 1999*, thereby representing a MSES.
- No MNES/MSES fauna species were observed, apart from indirect evidence of echidna (i.e. scat). Fauna habitat is considered limited within and adjacent the Project footprint.
- Suitable habitat for Lyon’s Grassland Striped Skink may be present. However, confirmation is pending further investigation into the specific habitat attributes that comprise suitable habitat.

Two different approvals pathways were recommended:

Pathway #1 - Environmental Authority (EA) with Progressive Rehabilitation and Closure Plan (PRCP) under the Environmental Protection Act 1994 (EP Act); and separate Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) referral and approval; or



Pathway #2 - Environmental Impact Statement (EIS) and PCRPs under the EP Act; and, bilateral assessment under the EPBC Act.

EMM reports on the outcomes of the ecology surveys and approvals optioneering are included as Appendix 3 and Appendix 4.

Timeframes prior to lodgement of applications are estimated to be:

- Fieldwork and baseline data gathering phase: approximately 4 months, depending on seasonality (e.g. ecology) and longer term analysis studies (e.g. geochemistry).
- Impact assessment phase: approximately 3 months depending on adequacy of information available to identify/derive impacts (e.g. surface water management system, water quality modelling, landform modelling, etc.)

Once all applications have been submitted it is expected there will be a 12-month (Pathway #1) or 2.5-year (Pathway #2) approvals period once all applications have been lodged. These timeframes assume no appeals and requests for further information are limited to one phase and responded to in a timely fashion.

3.2 Proposed Mining Operation

ASQ proposes to establish a mining operation consisting of drill and blast, excavation of ore and hauling to a stockpile and processing area where mined ore will be crushed and screened to produce a sized product that will be stockpiled and loaded onto road trains for transport to Townsville. ASQ will be responsible for loading the road trains, while Quinbrook will be organising the trucking to their facility in Townsville.

3.2.1 Mining Plan

Mining is expected to be undertaken on a contract basis by conventional truck and shovel methods with drill and blast required prior to excavating the quartz material. Two to four articulated dump trucks will be employed to haul the ore from the Quartz Hill Mine pit to the stockpile and processing area via a crossing to be established across Elizabeth Creek to the south of the mine pit. It is expected that the initial mining proposal will not consider mining below the level of the land surrounding Quartz Hill. For the purpose of this study it is assumed that mining will be carried out on a campaign basis during the dry season months. Prior to the commencement of mining a mine plan and mining schedule will need to be developed. These detailed mining engineering studies have not been undertaken as part of this scoping study.

3.2.2 Mining Rate and Life of Mine

The expected production rate is 300ktpa of MGSI product transported annually to Townsville. Using the ore sorting trial of 19-100mm High and Medium Grade Sorted Cut plus the +50-100mm Low Grade Sorted Cut as the base case, this is likely to require excavation of around 635ktpa of quartz ore due to losses to undersize and ore sorting waste. In addition, there will be up to 35ktpa of waste wall rock that will need to be mined. Mining is expected to be on a campaign basis with dayshift only operations. During mining campaigns work will be ongoing 7 days per week. The mine is expected to meet the feedstock requirements of the Quinbrook MGSI plant for 15 years.

3.2.3 Hydrology

Due to the elevated nature of the Quartz Hill deposit and the indurated, non-porous nature of the ore and country wall rock groundwater volumes within the mining pit are expected to be low. This assumption is consistent with the water encountered during the 2023 RC drilling. The water levels in selected drill holes were dipped in November 2023 with levels given in *Table 4*.

Table 4 - Drill hole water levels, November 2023

| Hole ID | Collar East MGA94 | Collar North MGA94 | Collar RL mASL | Dip | Azimuth | Water level (downhole) | Water depth when drilled (downhole) |
|----------|-------------------|--------------------|----------------|-----|---------|------------------------|-------------------------------------|
| ASQQR001 | 7997248 | 207714 | 489.851 | -90 | 334 | 49.8m | 90m |
| ASQQR005 | 7997290 | 207946 | 523.793 | -80 | 0 | 61.2m | Not recorded |
| ASQQR006 | 7997049 | 207510 | 427.41 | -55 | 334 | 11.3m | 50.5m |



| | | | | | | | |
|----------|---------|--------|---------|-----|-----|-------|-----|
| ASQQR007 | 7997049 | 207513 | 427.229 | -80 | 333 | 15.5m | 61m |
| ASQQR009 | 7997252 | 208118 | 523.891 | -80 | 356 | 67.8m | 95m |
| ASQQR010 | 7997137 | 207648 | 455.406 | -55 | 334 | 48.6m | 57m |
| ASQQR011 | 7997133 | 207649 | 454.976 | -80 | 334 | 41.1m | 47m |

It is expected that a crossing will be constructed across Elizabeth Creek at 7996976mE 207487mN. The crossing will be at the existing creek bed level to prevent disruption to water flows. Elizabeth Creek is understood to be perennial and largely spring fed. During the wet season the creek is known to rise significantly and this is a factor contributing to the assumption that mining will be completed on a campaign basis during the dry season only.

It is proposed that small volumes of water for use in dust suppression and equipment washdown will be pumped from Elizabeth Creek adjacent to the haul road crossing and stored in a plastic water tank at the processing pad.

3.2.4 Waste Rock

Waste wall rock will be stockpiled on the northern low to mid slopes of the Quartz Hill ridge in a manner that blends with the existing hill gradients. Stockpiles will be arranged in a way that they will be available for future utilisation as crushed rock products for the local roadbuilding and construction industry.

3.2.5 Processing

Stockpiled mined ore will be fed onto a grizzly for removal of oversize rocks. Oversize will be separately stockpiled for breaking down by rock hammer. Grizzly underfeed will go through a jaw crusher with a target product size of +20-100mm. Crushed material will be dry screened to +20-100mm and then scrubbed in a rubber lined scrubber fitted with a two stage trommel screen to produce a +20-50mm fraction and a +50-100mm fraction. Each fraction will be campaign processed through an ore sorting machine. The throughput rate of the processing plant is expected to be approximately 200tph.

3.2.6 Ore Loss/Tailings Management

There will be a portion of the quartz ore that gets crushed to undersize (<20mm). Drill and blast design will be managed to minimise undersize however it is expected that up to 20% of mined material may report to primary screen undersize. This material will be well suited to use as road base and some will be used for site roads and pads. Etheridge Shire have indicated they may purchase all undersize material produced.

Based on the metallurgical testwork it is expected that around 11% of the scrubbed lump will report to the <20mm trommel undersize. A small proportion of this material will be slimes but mostly it will be sand sized or coarser. The sand will need to be deslimed and dewatered via a cyclone and dewatering screen with the water recycled via a small two stage settling pond. It is assumed the slimes volume will be minor and could be managed by replacing the primary cell of the settling pond every 2-3 years. The sand to 20mm sized trommel undersize is expected to be used as roadbase within the project area or sold locally.

3.2.7 Plant and Equipment

The mining contractor will bring to site the following plant and equipment:

- Blast drill rig
- Excavator
- Articulated off road dump trucks
- Front End Loader
- Jaw Crusher
- Scrubber with two stage trommel
- Screens
- Conveyors
- Pumps
- Genset
- Light vehicles
- Workshop/Stores container



- Self-bunded fuel storage
- Self-contained onsite camp including ablutions

ASQ will supply the Ore Sorting machine and associated infrastructure including compressed air supply and the required chutes and conveyors.

3.2.8 Site Layout

As shown in Figure 6, the 35Ha mine pit will run the length of the Quartz Hill ridge with waste rock stockpiled on the northern slope of the ridge (estimated life of mine waste stockpile footprint is 9Ha). The Elizabeth Creek crossing will be located near the western end of the pit immediately south of the mine pit. The stockpile and processing pad (10Ha) will be placed between Elizabeth Creek and Obrien's Creek Road south of the deposit with the accommodation facility established to the east of the processing pad.

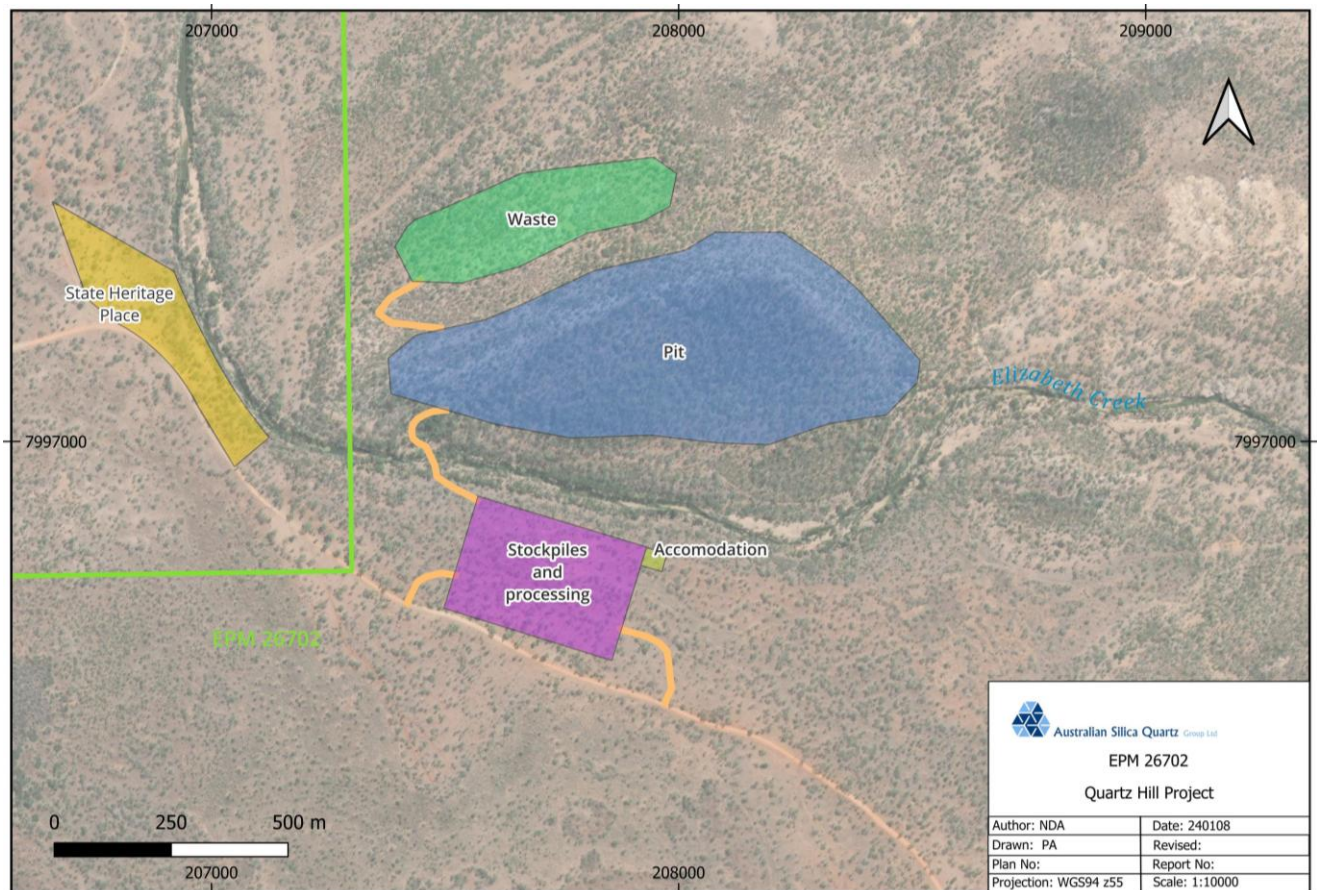


Figure 6 - Proposed Quartz Hill Site Layout

3.2.9 Personnel

The mining and processing will be completed by a specialist quarrying contractor who will assume the statutory responsible person appointments for the site.

The Quarrying Contractor will have a single shift crew of 6 operators working a 12-hour day on a 14:7 roster. From time to time, ASQ will have supervising and exploration personnel on site.

4. FINANCIAL ANALYSIS

4.1 Capital Expenditure Estimate

The total capital expenditure for the project has an upper estimate of \$6.84m and a lower estimate of \$2.44m (refer Table 5 below).



Table 5 – Project Capital Cost Estimate

| Item | Cost Estimate - Upper | Cost Estimate - Lower |
|---|-----------------------|-----------------------|
| Feasibility studies and project design | \$2,000,000 | \$200,000 |
| Environmental approvals incl. site surveys | \$1,140,000 | \$900,000 |
| Land access negotiations | \$100,000 | \$40,000 |
| Heritage surveys and ILUA negotiations | \$100,000 | \$40,000 |
| Mining Lease application | \$50,000 | \$25,000 |
| Mining contractor mobilisation | \$250,000 | \$150,000 |
| Mine Establishment and Earthworks | \$200,000 | \$80,000 |
| Ore sorting machine and associated infrastructure | \$3,000,000 | \$1,000,000 |
| TOTAL | \$6,840,000 | \$2,435,000 |

4.2 Operating Costs

Table 6 – Project Operating Costs Estimate Summary

| Year | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Capex (AUD) | \$ 3,165,500 | | | | | | | | | |
| Mining Contractor Opex (AUD) | \$ 7,829,018 | \$ 26,010,832 | \$ 26,015,766 | \$ 26,117,962 | \$ 26,117,962 | \$ 26,117,962 | \$ 26,117,962 | \$ 26,117,962 | \$ 26,117,962 | \$ 26,117,962 |
| Other Opex (AUD) | \$ 615,009 | \$ 1,397,487 | \$ 1,401,147 | \$ 1,401,147 | \$ 1,401,147 | \$ 1,401,147 | \$ 1,401,147 | \$ 1,401,147 | \$ 1,401,147 | \$ 1,401,147 |
| Total Opex (AUD) | \$ 8,444,027 | \$ 27,408,319 | \$ 27,416,913 | \$ 27,519,109 | \$ 27,519,109 | \$ 27,519,109 | \$ 27,519,109 | \$ 27,519,109 | \$ 27,519,109 | \$ 27,519,109 |
| Mining (tonnes) | 102,240 | 351,360 | 351,360 | 351,360 | 351,360 | 351,360 | 351,360 | 351,360 | 351,360 | 351,360 |
| Operating Cost (AUD\$/t) | 92.59 | 78.01 | 78.03 | 78.32 | 78.32 | 78.32 | 78.32 | 78.32 | 78.32 | 78.32 |

4.3 Net Present Value

Table 7 – Project NPV Summary

| Year | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---------------------------|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Capex (AUD) | \$ 3,165,500 | | | | | | | | | |
| Opex (AUD) | \$ 8,444,027 | \$ 27,408,319 | \$ 27,416,913 | \$ 27,519,109 | \$ 27,519,109 | \$ 27,519,109 | \$ 27,519,109 | \$ 27,519,109 | \$ 27,519,109 | \$ 27,519,109 |
| Revenue (AUD) | \$ 8,735,040 | \$ 34,757,312 | \$ 35,001,312 | \$ 35,001,312 | \$ 35,001,312 | \$ 35,001,312 | \$ 35,001,312 | \$ 35,001,312 | \$ 35,001,312 | \$ 35,001,312 |
| Discount Rate (%) | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Net Cash | - 2,874,487 | 7,348,993 | 7,584,399 | 7,482,203 | 7,482,203 | 7,482,203 | 7,482,203 | 7,482,203 | 7,482,203 | 7,482,203 |
| Discounted Cash | - 2,613,170 | 6,073,548 | 5,698,271 | 5,110,445 | 4,645,859 | 4,223,508 | 3,839,553 | 3,490,503 | 3,173,184 | 2,884,713 |
| 10 Yr NPV (AUD\$m) | \$ 36,526,415 | | | | | | | | | |

4.4 Timeframe

From the decision to proceed beyond this scoping study the development of the Quartz Hill project is expected to take a minimum of 16 months. The timing could be delayed by challenges encountered in a number of critical path tasks. Assuming the establishment of Land Access and Heritage and ILUA agreements within reasonable timeframes environmental approvals are expected to be the longest lead items.

If the chosen pathway for environmental approval is variation of the Environmental Authority with Progressive Rehabilitation and Closure Plan and separate Environment Protection and Biodiversity Conservation Act referral the expected project development should take 16 months, assuming two months of project design phase prior to commencing the approvals process and a further two months to mobilise the mining contractor and commence operations after the final approvals are received.

It is estimated an additional 16 months will be required if an Environmental Impact Statement and Progressive Closure and Rehabilitation Plan with bilateral assessment under the EPBC Act is required.

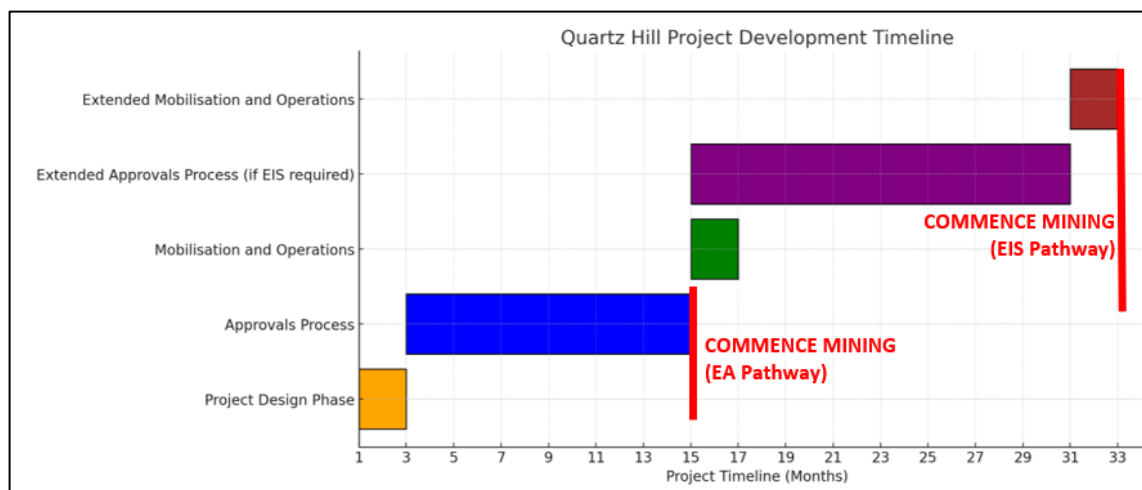


Figure 7 – Summary Project Development Timeline

4.5 Sensitivity Analysis

The financial viability of the project is likely to be sensitive to a number of factors. Several factors that often influence bulk commodities projects such as exchange rates, shipping costs and volatile metals markets are not expected to have significant influence on this project. The product is expected to be taken 100% by PEP with sale in Australian Dollars. No project costs are expected to be tied into the US dollar or other foreign currencies. The product will be trucked by PEP to the refinery in Townsville with no shipping required. Whilst the HoA between ASQ and PEP requires the product to be sold to PEP at a 10% discount to the prevailing market price, after significant effort and far ranging enquires ASQ has concluded that an accessible reference market price for MGSI Quartz does not exist at this point in time.

The two factors that are expected to be critical to the viability of the project are the product recovery and the product sale price. Figure 8, Figure 9 and Figure 10 chart the effect of each of these on the 10 year NPV of the project along with the total operating cost per tonne. As the bulk of the operating cost is expected to be a fixed mining and processing rate per tonne the operating cost is expected to be closely tied to the product recovery. Other factors that have been looked at include the price and volume of waste products sold and the drill and blast requirements for waste.

The base case assumes only \$10/t revenue for sold waste streams (-20mm crusher undersize and +20-100mm sorted rejects). This price is considered very conservative. It is highly likely that the lower the price the greater the volume of waste sold will be. The project NPV is sensitive to the waste revenue. Increasing the waste price to \$50/t sees the project NPV increase to \$75m however at that price it is unlikely demand would be high. The base case price is considered reasonable. By contrast if the price is lowered or the volume sold reduced by 50% the NPV only drops to around \$31m from \$37m in the base case.

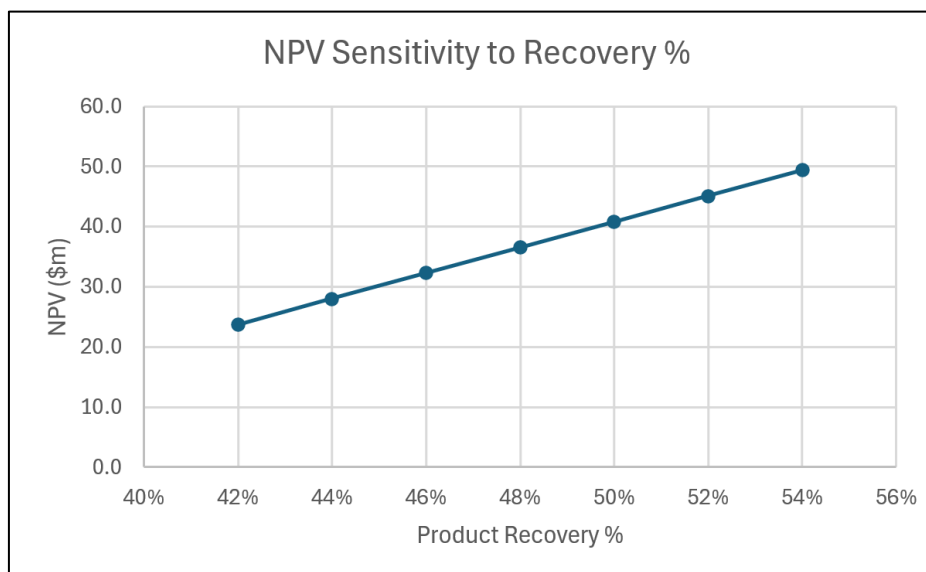


Figure 8 – Sensitivity of the Project NPV to Product Recovery

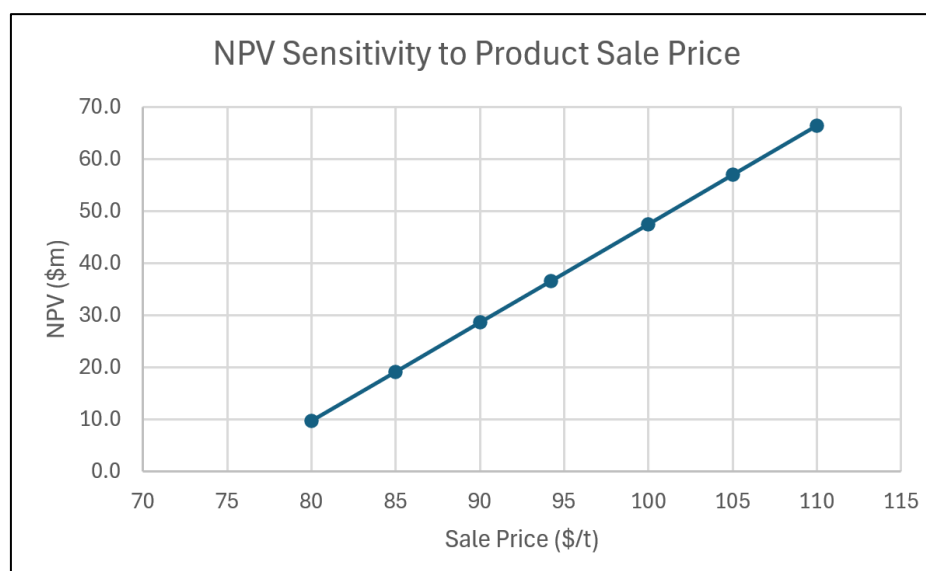


Figure 9 – Sensitivity of the Project NPV to Product Sale Price

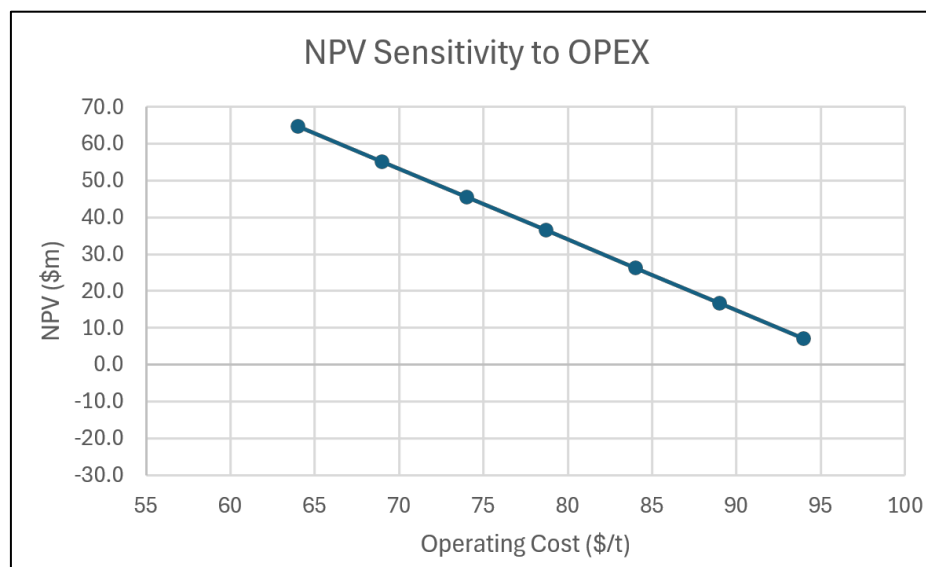


Figure 10 – Sensitivity of the Project NPV to Operating Cost



Table 6 – Project Sensitivity Analysis

| Pre-Tax | Base Case (NPV \$36.5m, IRR 258%) | | |
|---------------|-----------------------------------|-----------------|----------------------|
| | Recovery 25% Lower | OPEX 25% Higher | Sale Price 25% Lower |
| NPV (\$AUD) | \$10.9m | -\$1.4m | -\$8.1m |
| Discount Rate | 10% | 10% | 10% |
| IRR | 68% | 2% | - |

4.6 Opportunities and Threats

4.6.1 Project Timeline

The estimated project development timeframe currently has a wide range. It is recommended the project design, environmental fieldwork and baseline data gathering phase and the impact assessment phase be completed as early as practical and in consideration of the appropriate survey seasonality to de-risk the project timeline as much as possible.

4.6.2 Grade

For the base case of this study the expected product grade is as shown in Table . These characteristics are derived from the metallurgical testwork undertaken by ASQ. The testwork used sample derived from a single drill hole. There is a risk these results are not representative of the remainder of the resource. Confidence that these grades could be consistently achieved throughout the life of the project would require additional drilling and testwork.

Table 7 – Scoping Study Base Case Product Grade

| | Yield* | SiO ₂ | Fe ₂ O ₃ | Al ₂ O ₃ |
|---|--------|------------------|--------------------------------|--------------------------------|
| 19-100mm High and Medium Grade Sorted Cut + 50-100mm Low Grade Sorted Cut | 48% | 99.32 | 0.06 | 0.42 |

*Yield is the calculated deportment of the full sample prior to any processing

These grades do not meet the specification for “best case scenario” feedstock material as provided by PEP. ASQ has had detailed discussions with PEP on the grade required. As ASQ understands until such time as the design process for the MGSi refinery and integrated polysilicon plant have further progressed PEP are not in a position to give firm guidance on the minimum specification of the feedstock product. There remains a risk the Quartz Hill material may be unsuitable or only suitable when blended with quartz lump an additional higher-grade source.

4.6.3 Product Recovery/Operating Cost

For the base case of this study the expected product grade yield is 48% as derived from the metallurgical testwork undertaken by ASQ. The testwork used sample derived from a single drill hole. There is a risk these results are not representative of the remainder of the resource. Likewise, there is a risk the testwork did not accurately replicate the production process and once in operation the project may not achieve the expected yields resulting in a lower volume of product and as a result substantially higher operating costs. Confidence that these grades could be consistently achieved throughout the life of the project would require additional drilling and/or bulk sampling and testwork. Specifically drill and blast trials followed by crusher tests for sample derived from multiple locations across the resource if possible, would be well advised.

4.7 Feasibility

Using the base case the project financial model produces a net present value of \$37m and an internal rate of return (IRR) of 258%. Whilst this represents a positive IRR it should be noted the project capital cost (base case capital cost estimate: \$3.2m) is low in comparison to the annual operating expenditure (base case annual operating costs estimate for years 5-10: \$27.5m) highlighting the vulnerability of the project to escalating operating costs on a per tonne basis. The cash margin produced in the base case study is around \$15.50/t representing a pre-tax non-discounted profit margin of 20% on the operating costs.

The HoA with PEP states the product will be sold from the mine gate at Quartz Hill at a 10% discount to the prevailing MGSi Quartz market price or such price that would constitute a fair market return to ASQ (whichever



is the greater). The HoA does not define a fair return. ASQ believes the proposed profit margin of 20% on operating costs to be a minimum as that structure does not take into account the inherent risks of the Project together with the historic exploration time and costs.



Appendix A: Reasonable basis for forward looking statements

No Ore Reserve has been declared. This ASX release has been prepared in compliance with the current JORC Code (2012) and the ASX Listing Rules. All material assumptions on which the Scoping Study production target and projected financial information are based have been included in this release and disclosed in the table below.

Consideration of Modifying Factors (in the form of Section 4 of the JORC Code (2012) Table 1)

| Criteria | JORC Code Explanation | Commentary |
|---|--|---|
| Mineral Resource estimate for conversion to Ore Reserves | <ul style="list-style-type: none"> <i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i> <i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i> | The Mineral Resource estimate on which the scoping study is based was separately and previously announced on 12 December 2023. No Ore Reserve has been declared as part of the scoping study. |
| Site Visits | <ul style="list-style-type: none"> <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i> <i>If no site visits have been undertaken indicate why this is the case.</i> | Site visit information and commentary pertaining to the Mineral Resource estimate are provided in the Mineral Resource estimate announcement of 12 December 2023. |
| Study status | <ul style="list-style-type: none"> <i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i> <i>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.</i> | <p>No Ore Reserve has been declared.</p> <p>No Ore Reserve has been declared. The study is a scoping level study.</p> |
| Cut-off parameters | <ul style="list-style-type: none"> <i>The basis of the cut-off grade(s) or quality parameters applied.</i> | Cut-off grade parameters for the Mineral Resource estimate are provided in the Mineral Resource estimate announcement of 12 December 2023. |
| Mining factors or assumptions | <ul style="list-style-type: none"> <i>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).</i> <i>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.</i> <i>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</i> | <p>No Ore Reserve has been declared.</p> <p>Refer Section 3.2 (Proposed Mining Operation) of the Executive Summary.</p> <p>The Study assumes all pre-production drilling will be completed during a feasibility level study. No detailed pit design has been completed. It is assumed 5-10% waste wall rock will need to be mined annually.</p> |



| | | |
|---|---|--|
| | <ul style="list-style-type: none"> <i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i> <i>The mining dilution factors used.</i> <i>The mining recovery factors used.</i> <i>Any minimum mining widths used.</i> <i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i> <i>The infrastructure requirements of the selected mining methods.</i> | <p>No detailed pit design has been completed.</p> <p>Refer Section 3.2 (Proposed Mining Operation) of the Executive Summary.</p> <p>Refer Section 3.2 (Proposed Mining Operation) of the Executive Summary.</p> <p>No minimum mining widths have been used as no detailed pit design has been completed.</p> <p>Refer Section 3.2 (Proposed Mining Operation) and Section 4 (Financial Analysis) of the Executive Summary.</p> <p>Refer Section 3.2 (Proposed Mining Operation) of the Executive Summary</p> |
| Metallurgical factors or assumptions | <ul style="list-style-type: none"> <i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i> <i>Whether the metallurgical process is well tested technology or novel in nature.</i> <i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i> <i>Any assumptions or allowances made for deleterious elements.</i> <i>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.</i> <i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i> | <p>Refer Section 2.7 (Metallurgical Testwork Program) and Section 3.2 (Proposed Mining Operation) of the Executive Summary</p> <p>The metallurgical process is considered well tested technology for this application.</p> <p>Refer Section 2.7 (Metallurgical Testwork Program) and Section 3.2 (Proposed Mining Operation) of the Executive Summary</p> <p>It was assumed the concentrations of deleterious elements would be acceptable to the end user however that is not the case.</p> <p>Refer Section 2.7 (Metallurgical Testwork Program) and Section 3.2 (Proposed Mining Operation) of the Executive Summary</p> <p>No Ore Reserve has been declared.</p> |
| Environmental | <ul style="list-style-type: none"> <i>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.</i> | <p>Refer Section 3.1.3 (Environmental), Section 4.4 (Timeframe) and Section 4.6 (Opportunities and Threats) of the Executive Summary</p> |



| | | |
|--------------------------|---|--|
| Infrastructure | <ul style="list-style-type: none"> 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. | Refer Section 1 (Introduction) and Section 3.2 Proposed Mining Operation of the Executive Summary |
| Costs | <ul style="list-style-type: none"> 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 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. | <p>Capital costs estimated by the ASQ study team and/or derived from suppliers and contractors quotes.</p> <p>Operating costs estimated by the ASQ study team and/or derived from suppliers and contractors quotes.</p> <p>n/a</p> <p>n/a</p> <p>n/a</p> <p>n/a</p> <p>Inclusion of the statutory State of Queensland mineral royalty and an estimated Native Title Group royalty</p> |
| Revenue Factors | <ul style="list-style-type: none"> 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 revenue is derived by applying a 20% margin on costs as there is no index MGSI Quartz market price available and the HoA stipulated the sales price would be a 10% discount to the prevailing MGSI Quartz market price or such price that would constitute a fair market return to ASQ (whichever is the greater). |
| Market Assessment | <ul style="list-style-type: none"> 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. | There are no solar grade polysilicon refineries operating in Australia to form the basis for a reasonable market assessment. Detailed information from offshore refineries was not available despite ASQ approaching multiple qualified market analysts. As such the study assumed revenue based on costs plus a 20% margin. The study was based on expected long term steady demand from Quinbrook. |
| Economic | <ul style="list-style-type: none"> 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 | <p>Refer section 4.3 (Net Present Value) in the Executive Summary.</p> <p>Refer section 4.5 (Sensitivity Analysis) in the Executive Summary.</p> |



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| Social | <ul style="list-style-type: none"> The status of agreements with key stakeholders and matters leading to social licence to operate | Refer section 3.1 (Tenure) in the Executive Summary. |
| Other (incl Legal and Governmental) | <ul style="list-style-type: none"> 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. | <p>No Ore Reserve has been declared.</p> <p>No material naturally occurring risks have been identified.</p> <p>The project is owned 100% by ASQ and there are no marketing agreements in place.</p> <p>There are currently no governmental agreements in place.</p> <p>The tenements the subject of the Study have been granted and are owned 100% by ASQ.</p> <p>There are reasonable grounds from the studies conducted to date to expect that all necessary Government approvals will be received within the timeframes anticipated. The Company is yet to commence Pre-Feasibility and Feasibility studies.</p> |
| Classification | <ul style="list-style-type: none"> 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). | <p>No Ore Reserve has been declared.</p> <p>No Ore Reserve has been declared.</p> <p>No Ore Reserve has been declared.</p> |
| Audits and Reviews | <ul style="list-style-type: none"> The results of any audits or reviews of Ore Reserve estimates | No Ore Reserve has been declared. |
| Discussion of relative accuracy/confidence | <ul style="list-style-type: none"> 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 | <p>No Ore Reserve has been declared.</p> <p>No Ore Reserve has been declared.</p> <p>No Ore Reserve has been declared.</p> |



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| | <p><i>impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</i></p> <ul style="list-style-type: none">• <i>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</i> | <p>No Ore Reserve has been declared.</p> |
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