

# MT MACKENZIE OPTIMISATION BOOSTS REGIONAL GROWTH STRATEGY



# **Highlights**

- The Company recently acquired 100% of the Mount Mackenzie gold and silver project from Resource and Energy Group (REZ).
- Total Mineral Resource Estimate now stand at 3.3Mt @ 1.40 g/t Au and 8.4 g/t Ag for a total of 151,000oz Au and 900,000oz Ag.
- The open pit optimisation delivers a Production Target Estimate of 800,000t of oxide material
   1.3g/t Au and 7.7g/t Ag and 1.5Mt of sulphide material
   1.38g/t Au and 9.5g/t Ag.
- The production target estimate comprises 90% Indicated and 10% Inferred resources.
- Favourable **open pit strip ratio of 4.2:1** supports the Company's proposed mine and haulage operation to the planned Mt Chalmers processing plant.
- Mount Mackenzie represents a third source of material, coupled with Mt Chalmers and Develin Creek material, expanding inventory and strengthening QMines' regional growth strategy.

#### Introduction

QMines Limited (QMines or Company) is pleased to report positive open pit optimisation results for its 100% owned Mount Mackenzie Gold-Silver Project in Queensland. Mount Mackenzie is a high-sulphidation epithermal gold-silver deposit recently added to QMines' portfolio (acquired July 2025), and forms a key part of the Company's strategy to develop a regional processing hub in Central Queensland.

The optimisation and production target reported demonstrate that Mount Mackenzie can be economically mined via open pit mining and hauled to the planned Mt Chalmers process plant. Based on these positive results, Mt Mackenzie will now be integrated into the Mount Chalmers updated PFS due for release in H1-2026. Mount Mackenzie materially increases the scale of the Mt Chalmers copper-gold project, which is now underpinned by a project wide MRE of ~19Mt across three 100% owned projects details of which are shown in Tables 2 and 3 below.

#### **Pre-Feasibility Study Update**

The Mount Mackenzie optimisation has been undertaken as part of an ongoing Pre-Feasibility Study (**PFS**) update that will include material from the Company's three wholy owned projects, Mount Chalmers, Develin Creek and Mount Mackenzie. The current Mount Chalmers PFS is based on a 1.0Mtpa process plant designed to produce three concentrates from blended material mined at Mount Chalmers<sup>1</sup>.







The updated PFS due for delivery in H1-2026 will evaluate the installation of a larger processing plant of up to 2.0Mtpa located at Mount Chalmers. The Company will also investigate alternate flow sheet parameters to treat blended material planned to be mined from the Company's three projects, Mount Chalmers, Develin Creek and Mount Mackenzie.

COMO Engineers have been engaged to update the PFS process plant design and flow sheet parameters to incorporate the increased throughput of up to 2.0Mtpa. The process plant flow sheet design will incorporate newly revised cost metrics to increase the scale of the plant and to add an CIL circuit to process recoverable gold and silver from oxide material to be mined.

Additional metallurgical testwork on the blended materials to be processed is currently being finalised by COMO for concideration in the updated PFS.

### **Management Comment**

Executive Chairman Andrew Sparke commented:

"We are delighted with this optimisation results at Mount Mackenzie, which confirms our newest asset to be a high-quality, high-margin open pit operation in the making. The pit shell outlines a substantial tonnage of gold and silver bearing material at surface with a low strip ratio, which is a fantastic outcome for any potential new mine.

For our shareholders, this means Mount Mackenzie could deliver significant low-cost ounces into our production profile. These results bolster our hub-and-spoke strategy, with Mount Mackenzie's material contributing to a planned centralised 2.0Mtpa processing plant, we foresee potential for greater throughput and enhanced project economics for the planned development. We now have three advanced deposits (Mt Chalmers, Develin Creek and Mt Mackenzie) that could potentially feed into one processing plant, which is shaping up to be one of Australia's next long-life, multi-asset copper and gold operations with scale.

The team have moved quickly to integrate this project into the updated Pre-Feasibility Study. We are also excited to test the growth potential at Mount Mackenzie. The deposit remains open along strike and at depth and we see potential for significant growth here. This optimisation is a great result that adds confidence to Mount Mackenzie's value and its contribution to QMines' future production pipeline."

### **Project Background**

The Mount Mackenzie project is located approximately 140km north-west of Rockhampton in Queensland, and approximately 45km north of QMines' Develin Creek copper-zinc project. The deposit is a high-sulphidation epithermal gold-silver system hosted in volcanic rocks. It features an upper oxidized zone and a lower primary sulphide zone, which is typical for this deposit style.

Historical exploration and small-scale mining date back to the 1980s however the project saw renewed focus in recent years with resource drilling and studies completed by the previous owner (Resource & Energy Group). QMines acquired 100% of Mt Mackenzie on 7th July 2025, recognising its strategic fit as a satellite source for Mt Chalmers.



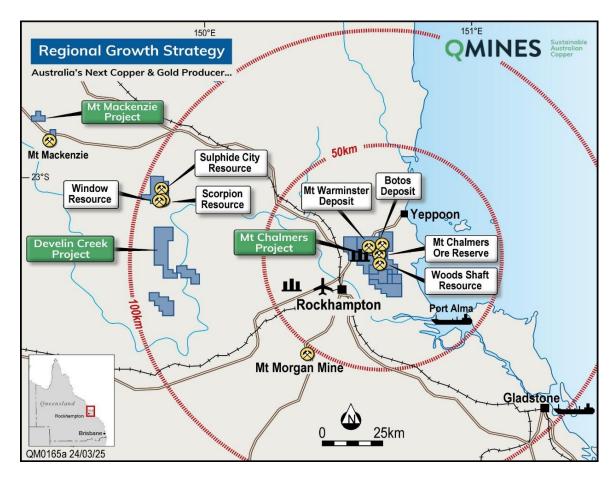


Figure 1: Location and Infrastructure at Mt Chalmers, Develin Creek and Mt Mackenzie projects.

#### Mount Mackenzie Mineral Resource<sup>2</sup>

Shortly after acquisition, QMines published an updated JORC 2012 Mineral Resource Estimate (MRE) for Mt Mackenzie (9th July 2025). The resource now stands at 3.35Mt @ 1.40g/t Au and 8.4g/t Ag for 151,000oz of gold and 902,000oz of silver, reported above cut-off grades of 0.5 g/t Au (oxide) and 0.7 g/t Au (fresh). Approximately 67% of the resource (2.27Mt @ 1.38g/t Au, 9.6g/t Ag) is in the Indicated category, with the balance Inferred.

Table 1: Mount Mackenzie Resource Estimate using cut-off grade of 0.5g Au/t (Oxide) and 0.7g Au/t (Fresh) as at 9th July 2025.

Material Type	Cut-Off	Tonnes	Gro	ade	Gold (Au)	Silver (Ag)
Material Type	Au (g/t)	(Mt)	Au (g/t)	Ag (g/t)	kOz	kOz
Oxide (+Trans)	0.5	0.81	1.34	7.8	34.9	205.0
Fresh / Sulphide	0.7	2.54	1.42	8.6	116.3	697.1
Total	-	3.35	1.40	8.4	151.2	902.2

Note: Rounding errors may occur.

This robust, near-surface resource base underpins the positive optimisation results discussed above. Mineralisation remains open along strike and at depth, offering potential to grow the resource with further drilling. Notably, the resource update represented a 16% increase in contained gold and a 15% increase in gold grade over the previous estimate and significantly improved confidence with most of the ounces upgraded from Inferred to Indicated.

<sup>2</sup> ASX Announcement – <u>Mt Mackenzie Resource Upgrade</u>, 9<sup>th</sup> July 2025.

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Importantly, when combined with the Mt Chalmers and Develin Creek resources, the global resource base of QMines has grown significantly, reinforcing the Company's potential to develop a larger-scale operation.

Table 2: Combined Mt Chalmers, Develin Creek & Mt Mackenzie Mineral Resource Estimates.

Donosit	Tonnes (Mt)	Grade(s)					
Deposit		Cu (%)	Zn (%)	Au (g/t)	Ag (g/t)		
Mt Chalmers <sup>3</sup>	11.3	0.75	0.22	0.42	4.50		
Develin Creek <sup>2</sup>	4.2	1.00	1.16	0.15	6.02		
Mt Mackenzie³	3.5	-	-	1.40	8.60		
Total	18.9	0.88	0.64	0.54	5.7		

# **Mount Mackenzie Metallurgical Testwork**

Metallurgical sighter testwork was undertaken by ALS Metallurgy Perth in 2016 and 2017 and reported to market by REZ in the Mount Mackenzie Scoping Study on 5<sup>th</sup> December 2019<sup>4</sup> and summarised here. Metallurgical test work has shown that the oxide and to a lesser degree, the transitional materials have favourable processing characteristics and that the proposed Mount Chalmers CIL/CIP processing plant will be suitable to enable economic recovery of contained gold and silver from the Mount Mackenzie oxide and transitional material. Additional flotation testwork undertaken by ALS in 2017 indicates the Mount Mackenzie sulphide material recovery is significantly improved in flotation.

#### **Bench Scale Testwork**

Australian Laboratory Services Pty Ltd (**ALS**) has completed several programs of metallurgical testwork on oxidised, transitional and primary mineralised samples from diamond core and RC chips. In general, bottle roll tests on oxide material returned good gold recoveries; column leach tests gave low-moderate recoveries and bottle roll tests on sulphide material returned generally moderate-low recoveries. The low metallurgical recoveries for the sulphide samples are interpreted to be due to gold being locked up in the crystal lattices of the sulphides, and the presence of copper which may have inhibited recovery.

ALS have also examined the gold particle liberation size and leaching gold recoveries of representative samples. A total of 15 individual and 5 composite samples representing Oxide, Fresh and Transitional mineralisation were prepared for direct cyanidation leach test work. These composites were then subjected to three levels of grind size, P80: 150, 106 and 75 microns, the results for gold extraction are presented in table 3.

The metallurgical program included testing for Bond Work and Abrasion Index, SMC testing, leach recovery and leach diagnostic tests on crushed bore core, with the following summary results:

#### **Oxide Material Recovery**

Bond Work Index: kWh/t (9.5-12) in all classes of mineralisation.

Abrasion Index: (0.1-0.3) in all classes of mineralisation.

Gold Recoveries: (24 hour residence time).

Oxide mineraliastion: 91-96%;

• Transitional mineralisation: 79-82%; and

• Primary Sulphide mineralisation: 52-64%.



<sup>&</sup>lt;sup>3</sup> ASX Announcement – <u>Mt Chalmers PFS Supports Viable Copper & Gold Mine</u>, 30 April 2025.

<sup>&</sup>lt;sup>4</sup> ASX Announcement - <u>Mount Mackenzie Scoping Study</u>, 5 December 2019.



#### Silver Recoveries:

Oxide mineralisation: 80-92%;

• Transitional: 53-67%; and

Primary Sulphide mineralisation: 30-48%.

Table 3: ALS cyanide leach testwork results Mount Mackenzie composite mineralisation matallurgical results 2017.

CYANIDE LEACH	TESTWORK	ON MASTER	COMPOSITES	: SUMMAR	Y OF RES	ULTS - GO	LD EXTRA	CTION			
Test ID (BK-)	Master Comp	Grind Size P <sub>80</sub> (μm)	Size Au Head Gra				action (%)	)	Au Tail Grade	Tail Reagents	
	ID		Assay	Calc'd	2	4	24	48	(g/t)	NaCN	Lime
9822	702-	150		3.5	71.9	88.3	91.9	90.9	0.32	0.35	0.16
9823	Oxide	106	3.25/ 2.00	3.22	74.5	90.5	91.4	91.6	0.27	0.28	0.21
9824		75		3.5	76.8	92.4	95.2	93.7	0.22	0.32	0.25
9825		150		1.3	33.5	42.5	56.2	59.2	0.53	0.42	0.34
9826	702- Fresh	106	1.13/ 1.28	1.18	31.6	40.3	55.9	59.9	0.48	0.42	0.31
9827	110311	75		1.27	34.2	43.4	61.8	64.3	0.46	0.42	0.41
9828	703-	150		1.35	87.9	93.4	94.5	94.1	0.08	0.35	0.64
9829	Oxide	106	1.29/ 1.18	1.41	91.1	94.7	95.2	95.7	0.06	0.35	0.65
9830		75		1.36	90.9	95.8	96.3	94.9	0.07	0.39	0.68
9831		150		1.6	45	48.2	51.3	51.9	0.77	0.96	1.41
9832	703- Fresh	106	1.54/ 1.56	1.51	48.2	49.2	53.4	53.3	0.71	0.95	1.52
9833	110311	75		1.52	52	53.9	56.7	55.1	0.68	1.01	1.52
9834		150		3.26	59.8	63.8	74.3	78.5	0.7	0.42	1.44
9835	Trans	106	3.43/ 3.07	3.28	59.4	64.7	76	80.2	0.65	0.46	1.36
9836		75		3.6	63.3	67	78.8	82.5	0.63	0.42	1.53

#### **Sulphide Material Recovery**

ALS conducted additional flotation testwork on the Mount Mackenzie master composite sulphide material in September 2017 with the results and comments on this flotation testwork summarised below (Table 4).

- For the initial tests (BKF650 and BKF651), mass pull to concentrate was very high for both samples, particularly 702-Fresh. The high mass pull results in diluted concentrate grades.
- For 703-Fresh-Sulphide, 78% of the gold was recovered to flotation concentrate, despite 96.5% sulphide recovery. This suggests some of the gold in this sample is associated with other gangue minerals.
- Results for the follow-up tests (BKF652 and BKF653) show that a combination of a pre-flotation stage to remove naturally floating material and CMC addition has resulted in a significant reduction in mass pull to concentrate, and a subsequent increase in concentrate recovery range grades to 72.7% - 88.8% recovery with lower mass pull and up 89% recovery with higher mass pull.
- Pyrite is the dominant sulphide in both composites. Quartz and pyrophyllite are the main silicates. Pyrophyllite is the main reason for the diluted concentrate grades during flotation.

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Table 4: Flotation testwork recovery summaries Mount Mackenzie sulphide material.

		FLOTATION TESTWORK: SUMMARY OF RESULTS						
Composito	posite ID Test ID							
ID		Mass (%)	Au Grade (g/t)	Au Rec'y (%)	S <sup>2-</sup> Grade (%)	S <sup>2-</sup> Rec'y (%)		
702-Fresh	BKF650	56.7	2.12	88.8	8.21	88.2		
Sulphide	BKF652	22.6	4.96	79.7	20.8	84.9		
703-Fresh	BKF651	36.5	3.5	78.3	13.6	96.5		
Sulphide	BKF653	16.2	7.65	72.7	31.7	95.5		

The testwork undertaken by ALS from the Mount Mackenzie oxide and sulphide material indicates the Mt Mackenzie mineralisation is compatible with QMines Mt Chalmers process plant flowsheet seen in the Mt Chalmers PFS. The Company will now progress with mine schedule and open pit mine planning to include the Mount Mackenzie material in the Mt Chalmers mine plan. The updated mine plan will be included in the PFS due in H1-2026.

The Company will undertake further metallurgical testwork of the Mount Mackenzie sulphide material with the aim of improving recoveries in the sulphide material.

# **Mount Mackenzie Optimisation**

#### **Optimisation Assumptions**

Open pit optimisations at Mount Mackenzie were carried out using modifying factors and estimated mining, processing and administration costs. Price assumptions for gold and silver were selected as the base case for the Mount Mackenzie project and based on current market costing parameters and spot prices for precious metals. These parameters are presented in Table 5 "Key Material Assumptions".

The material assumptions for the project arise from current market conditions which have been updated where appropriate. The relevant material assumptions and economic parameters have been applied in the Mount Mackenzie open pit optimisations. The Mount Mackenzie isometric pit shells are shown in Figures 2-4 and assumptions are presented in Table 6.

The MRE grade shell block model used to calculate the metal content can be seen in isometric views in the three optimised pit shells. Revenues are adjusted for metallurgical recoveries, concentrate payabilities and royalties as applicable utilising metrics similar to those found in the Company's Mount Chalmers PFS report.<sup>5</sup>

The pit optimisation was then run by Minecomp using these assumptions. The optimum pit shell will be selected for the final open pit design limit and used as the basis for Life of Mine (**LOM**) design for the Mount Mackenzie project. The result from the Mount Mackenzie optimisation resulted in a three open pit designs as seen in Figures 2-4 below.

#### Criteria Used or Classification

The Mineral Resource Estimate on which the optimisation is based was prepared previously for the Company by independent resource geologists HGMC and published by the Company on the 9<sup>th</sup> July 2025.

<sup>5</sup> ASX Announcement – <u>Mt Chalmers PFS Supports Viable Copper & Gold Mine</u>, 30<sup>th</sup> April 2025.

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#### **Mining Method**

The Mount Mackenzie deposit is proposed to be mined as three open pits using conventional mining methods. The pits are designed to a nominal vertical depth of 75 metres and incorporates 45° batter angles and 5m berm widths. Ramps are either 15m wide (single lane) or 24m wide (double lane) and have a gradient of 1 in 9. The optimisation proposes a conventional drill and blast, load and haul open pit mining operation to haul ore to a processing plant with an annual throughput of 1 million tonnes per annum. Each of the three stages of the open pits at Mount Mackenzie will deliver between 0.8-2.4Mt to the proposed process plant located at Mt Chalmers.

#### **Cut Off Grade**

The gold cut-off grade used for the optimisation analysis was a diluted, payable gold grade of 0.3g/t. This figure was derived from metal prices, metallurgical recoveries, smelter payabilities and Queensland state government royalties.

The Mineral Resources Estimate was converted to a Production Target Estimate by the application of Whittle optimisation software to generate a series of nested pit shells. An optimum shell was then selected which not only achieved an attractive rate of return but also the desired process plant throughput and design parameters derived by COMO through known metallurgical testwork.

The grades and metal stated in the optimisation includes dilution and allowances for losses which may occur when the material is mined or extracted. These factors are defined by this study at a scoping level and are considered appropriate. The optimisation estimate is derived from Indicated and Inferred Mineral Resources. Mining modifying factors have been incorporated in the estimate at a rate of 5% mining dilution and 95% mining recovery.

#### **Optimisation Results**

The open pit optimisation study evaluated a series of pit shells at Mount Mackenzie using updated cost, recovery and geotechnical parameters. The study was completed by Minecomp Pty Ltd (Minecomp) as part of the Company's initial PFS work program. Multiple scenarios were generated using various assumptions, with the optimal pit shell for mine design chosen based on its size, grade and economic characteristics. This shell is considered the base case for subsequent mine planning. Key results for the selected shell are summarised below:

Production Target Tonnes: Approximately 2.3Mt of total production target tonnes within the pit designs, comprising approximately 0.8Mt of oxide/transitional material (amenable to CIP/CIL processing) and 1.5Mt of fresh sulphide material (amenable to flotation). This division reflects the two material types present at Mt Mackenzie and allows appropriate processing for each. The combined open pit strip ratio is 4.2:1.

**Grades:** The weighted average grade of the production target tonnes is approximately 1.35g/t Au and 8.9g/t Ag consistent with the overall resource grade (1.3g/t Au and 7.7g/t Ag in the oxide zone and 1.38g/t Au and 9.5g/t Ag in the fresh). This indicates the optimisation has captured the core of the deposit without high dilution.

The result includes approximately 90% Indicated and 10% Inferred Resource.

**Contained Metal:** In-pit contained metal is estimated at approximately 100,000 ounces of gold and 658,000 ounces of silver.

The Production Target and material assumptions referred to in this announcement comprise 90% Indicated Mineral Resources and 10% Inferred Mineral Resources. There is a lower level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in

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the conversion of Inferred material into Indicated Mineral Resources or that the Production Target will be achieved.

Table 5: Key Material Assumptions, Mount Mackenzie Optimisation Study.

Production Costs - 1 Mtpa Processing Plant	
Mining Ore (BCM)	\$10.95
Mining Waste (BCM)	\$7.80
Blasting (BCM)	Oxide \$1.20, Transition \$2.20, Fresh \$4.40
Grade Control (t Ore)	\$1.50
Haulage	\$24.30
Processing (t Ore) CIP Circuit	\$35.92
Processing (t Ore) Flotation	\$32.85
Treatment Chrges (T Ore) Flotation	\$2.45
Concentrate Transport (t Con)	\$14.70
General & Administration (t Ore)	\$6.00
Dewatering (BCM)	\$0.30
Rehabilitation (BCM Waste)	\$0.20
Mining Extras (BCM)	\$0.40
State Royalty	Au 5.0%, Ag 5.0%,
Processing Recoveries	
Gold Oxide	93.00%
Silver Oxide	80.00%
Gold Sulphide	81.00%
Silver Sulphide	88.00%
Mill Head Grade	
Gold Oxide	1.28g/t
Silver Oxide	7.00g/t
Gold Sulphide	1.38g/t
Silver Sulphide	9.50g/t
Optimisation Metals Price Assumptions	
Gold (\$/oz)	\$5,000
Silver (\$/oz)	\$55
Exchange Rate (\$USD-\$AUD)	\$0.63
Pit Depth (m)	140
Volume Ore Mined (BCM)	870,000
Volume Ore Mined (t)	2,250,000
Volume Waste Mined (BCM)	3,619,000
Stripping Ratio	4.2:1



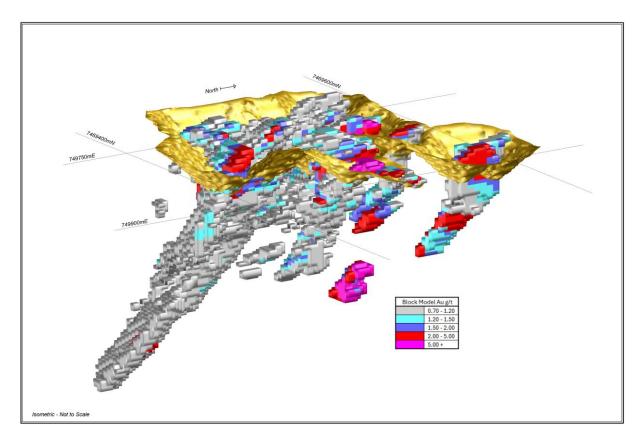


Figure 2: Three-dimensional isometric view showing open pit optimisation results and grade blocks at the North Knoll deposit at Mt Mackenzie. Oblique view looking north west.

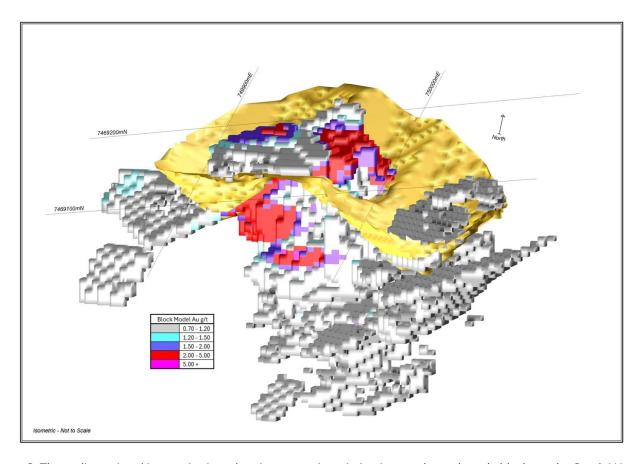


Figure 3: Three-dimensional isometric view showing open pit optimisation results and grade blocks at the South West Slopes deposit at Mt Mackenzie. Oblique view looking north north west.



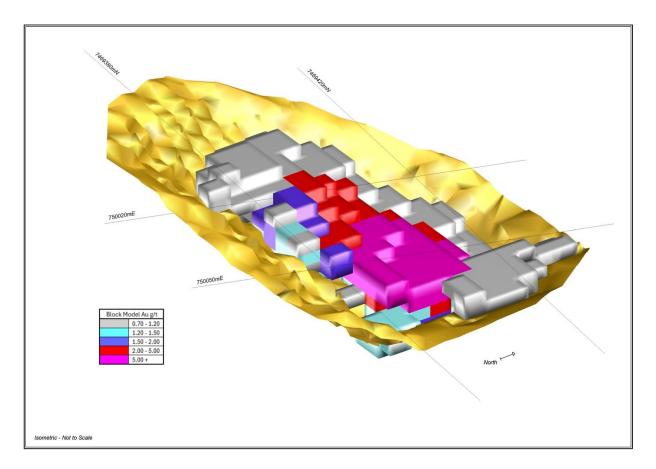


Figure 4: Three-dimensional isometric view showing open pit optimisation results and grade blocks at the Mt Mackenzie East deposit. Oblique view looking west north west.

# **Cautionary Statement**

The optimisation study and production targets referred to in this ASX announcement is conceptual in nature. It is a preliminary technical study to assess the potential for open pit precious metal mining and to assist in determining the likely depth of open pit mining and not intended as a feasibility study. It should be understood by the reader that this announcement reports on preliminary outcomes of early-stage open pit optimisation works on the North Knowl and South West Slopes deposits at Mount Mackenzie. The outcomes presented here should not be considered as anything other than preliminary guidance on the potential development of the Mount Mackenzie Project. It does not account for the capital costs of a processing plant or other pre-mining capital, infrastructure works and or permitting for the project.

The study referred to in this report is based on low-level scoping technical and economic assessment, 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 study will be realised.

#### What's Next?

QMines is advancing several parallel workstreams as it moves toward the delivery of an updated PFS due in H1-2026. These upcoming activities are designed to increase project definition, extend mine life, and optimise the economics of the Company's centralised processing plant development strategy.

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#### **Upcoming Milestones**

**Develin Creek Drilling Results:** Ongoing drilling at the Sulphide City deposit is aimed at resource growth and improved geological confidence. Assay results are expected in Q3-2025.

**Develin Creek Pit Optimisation:** A new open pit optimisation study is underway following the recent resource upgrade. Results are expected in Q3-2025 and will inform initial mine planning assumptions.

**Metallurgical Testwork – Mt Chalmers / Develin Creek:** PFS-level testwork is progressing and will inform processing route selection and integration into the broader flowsheet.

Scoping Study – Combines Mt Chalmers, Develin Creek & Mt Mackenzie Operation: A standalone scoping study is in development to evaluate the combined project's initial economic parameters and the logistical, metallurgical and economic suitability of combining feed from three regional projects into a larger integrated operation.

**Underground Optimisation – Sulphide City:** A separate underground study will assess the potential to access mineralisation at Sulphide City via underground mining, targeting higher-grade material, reduced waste movement and strip ratio.

**Pre-Feasibility Study (PFS) Update:** Workstreams from Develin Creek, Mt Mackenzie and Mt Chalmers will be integrated into an updated PFS planned for the first half of 2026. The revised study will reflect an expanded mine plan, incorporating blended material from the three projects, and updated capital and operating cost estimates.

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# **Forward-Looking Statements**

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning QMines Limited planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "expect," "intend," "may", "potential," "should," and similar expressions are forward-looking statements. Although QMines believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that further exploration will result in the estimation of additional Mineral Resources.

#### **Competent Person Statement**

#### Production Target Estimate – Mount Mackenzie

The Information in this Report that relates to the Open Pit Optimisation and Ore Reserve Estimate and is based on information compiled by Mr Gary McCrae, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr McCrae is a full-time employee of Minecomp Pty Ltd. Mr McCrae has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr McCrae consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Mineral Resource Estimates**

The information in this report that relates to mineral resource estimation for the Mount Chalmers, Develin Creek and Mount Mckenzie deposits are based on work completed by Mr. Stephen Hyland, a Competent Person and Fellow of the AusIMM. Mr. Hyland is Principal Consultant Geologist with Hyland Geological and Mining Consultants (HGMC), who is a Fellow of the Australian Institute of Mining and Metallurgy and holds relevant qualifications and experience as a qualified person for public reporting according to the JORC Code in Australia. Mr Hyland is also a Qualified Person under the rules and requirements of the Canadian Reporting Instrument NI 43-101. Mr Hyland consents to the inclusion in this report of the information in the form and context in which it appears.

#### **Exploration**

The information in this document that relates to mineral exploration and exploration targets is based on work compiled under the supervision of Mr Tom Bartschi, a member of the Australian Institute of Geoscientists (AIG). Mr Bartschiis QMines' principal geologist and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC 2012 Mineral Code). Mr Bartschi consents to the inclusion in this document of the exploration information in the form and context in which it appears.

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#### Ore Reserve Estimate - Mt Chalmers

Deposit <sup>6</sup>	Reserve Category	Tonnes (Mt)	Cut Off (% Cu)	Cu (%)	Au (g/t)	Zn (%)	Ag (g/t)	s (%)
Mt Chalmers	Proved	5.1	0.3%	0.72	0.58	0.25	4.70	5.80
Mt Chalmers	Probable	4.5	0.3%	0.57	0.37	0.29	5.50	3.60
Total <sup>1</sup>		9.6	0.3%	0.65	0.48	0.27	5.20	4.30

#### **Mineral Resource Estimate - Mt Chalmers**

Deposit <sup>7</sup>	Resource Category	Tonnes (Mt)	Cut Off (% Cu)	Cu (%)	Au (g/t)	Zn (%)	Ag (g/t)	s (%)
Mt Chalmers	Measured	4.2	0.3%	0.89	0.69	0.23	4.97	5.37
Mt Chalmers	Indicated	5.8	0.3%	0.69	0.28	0.19	3.99	3.77
Mt Chalmers	Inferred	1.3	0.3%	0.60	0.19	0.27	5.41	2.02
Total <sup>1</sup>		11.3	0.3%	0.75	0.42	0.23	4.60	4.30

#### Mineral Resource Estimate - Develin Creek

Deposit	Resource Category	Tonnes (Mt)	Cut Off (% Cu)	Cu (%)	Zn (%)	Au (g/t)	Ag (g/t)	Not in
Develin Creek	Indicated	2.90	0.3%	1.09	0.98	0.15	6.04	Mine
Develin Creek	Inferred	1.23	0.3%	0.81	1.58	0.16	6.00	Plan
Total <sup>2</sup>		4.13	0.3%	1.07	1.16	0.15	6.02	

#### Mineral Resource Estimate - Woods Shaft

Deposit <sup>8</sup>	Resource Category	Tonnes (Mt)	Cut Off (% Cu)	Cu (%)	Au (g/t)	Zn (%)	Ag (g/t)	Not in
Woods Shaft	Inferred	0.54	0.3%	0.50	0.95	-	-	Mine Plan
Total <sup>3</sup>		0.54	0.3%	0.50	0.95	-	-	

#### Mineral Resource Estimate – Mt Mackenzie

Deposit <sup>9</sup>	Resource Category	Tonnes (Mt)	Cut Off (g/t Au) *	Cu (%)	Au (g/t)	Zn (%)	Ag (g/t)	
Mt Mackenzie	Indicated	2.27	0.5 / 0.7g/t	-	1.38	-	9.6	Not in Mine
Mt Mackenzie	Inferred	1.08	0.5 / 0.7g/t	-	1.45	-	5.8	Plan
Total <sup>4</sup>		3.35	0.5 / 0.7g/t	-	1.40	-	8.4	

<sup>\*</sup> Oxide cut-off / Fresh cut-off

ASX:QML

<sup>&</sup>lt;sup>1</sup> ASX Announcement – <u>Mt Chalmers PFS Supports Viable Copper & Gold Mine</u>, 30 April 2024. Rounding errors may occur.

<sup>2</sup> ASX Announcement – <u>Develin Creek Resource Upgrade Improves Growth & Development Potential</u>, 12 March 2025. Rounding errors may occur.

<sup>3</sup> ASX Announcement - <u>Maiden Woods Shaft Resource</u>, 22 November 2022. Rounding errors may occur.

<sup>4</sup> ASX Announcement - <u>Resource Upgrade At Mount Mackenzie Gold & Silver Project</u>, 9 July 2025. Rounding errors may occur.

Following several resource updates, Mt Chalmers

and Develin Creek now have Measured, Indicated

and Inferred Resources (JORC 2012) of 15.5Mt @

Company towards sustainable copper production.

0.82% Cu, 0.35g/t Au, 0.47% Zn & 5g/t Ag.1

QMines' objective is to make new discoveries, commercialise existing deposits and transition the



#### **About QMines**

QMines Limited (ASX:QML) is a Queensland focused copper and gold exploration and development Company. The Company owns 100% of the Mt Chalmers (copper-gold) and Develin Creek (copper-zinc) deposits, located within 90km of Rockhampton in Queensland.

Mt Chalmers is a high- grade historic mine that produced 1.2Mt @ 2.0% Cu, 3.6g/t Au and 19g/t Ag between 1898-1982.

**Andrew Sparke**Executive Chairman

**Directors & Management** 

**Peter Caristo** Non-Executive Director (Technical)

**Tom Bartschi** Senior Geologist **James Anderson** General Manager Operations

Elissa Hansen Non-Executive Director & Company Secretary

#### **Projects & Ownership**

Mt Chalmers 100%

Develin Creek 100%

Mt Mackenzie 100%

#### **QMines Limited**

ACN 643 312 104 ASX:**QML** 

# Unlisted Options

10,750,000

Shares on Issue

469,401,985

#### **Compliance Statement**

With reference to previously reported Exploration results and mineral resources, the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parametres underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

1. ASX Announcement – <u>Develin Creek Resource</u> <u>Upgrade</u>. 12 March 2025.

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# JORC CODE, 2012 EDITION - TABLE 1

# Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>The majority of samples for grade estimation came from 5.25-inch percussion drillholes, with smaller contributions from 5.5-inch reverse circulation (RC) drilling and minor HQ3/NQ2 core drilling. Percussion and RC samples were typically collected at 1–2 m intervals, while core samples were generally 1 m or shorter where lithology or alteration changed.</li> <li>The resource database for the Mount Mackenzie deposit area totals 619 drillholes for 59707m of drilling as follows:         <ul> <li>23 DDH Holes for 2364m, 23 Percussion holes with NQ Diamond Tails for 16278m, 440 DTH Percussion holes for 27282m and 120 RC Holes for 17417m</li> <li>MMM drilling MMRC665-677 and MMRC679, plus MMDD678 and MMDD680</li> <li>13 RC Holes for 1146m, and 2 DDH Holes for 120m</li> </ul> </li> <li>MMM RC samples (MMRC665–MMRC677 &amp; 679) were collected every metre using a three-tier riffle splitter beneath the cyclone, with mostly dry, free-flowing samples. Earlier RC samples (PDH83–PDH160 and MMRC613–MMRC664) were collected every metre using either an agitating cyclone with self-splitting or a manual 50/50 splitter. Pre-MMM percussion samples were recovered via a surface casing diverter into an onboard cyclone; after each 1–2 m run, the hole was air bailed, and dry samples were riffle split into a 3–5 kg lab sample and 1 kg reference. Wet samples were drained, dewatered, and scooped for lab sampling, though some fine loss occurred. No specialized sampling tools were used.</li> </ul>
		<ul> <li>As standard practice, entire drilled intervals were sampled and</li> </ul>



Criteria	JORC Code explanation	Commentary
		tested, though some early holes were selectively assayed based on logging data (e.g. material above the Copper Mine Tuff unconformity may not have been tested). Full sampling and assay details are provided in supporting documentation.  Reverse circulation and core drilling produced 1 m samples, with 3–5 kg collected and pulverized to generate a 50 g charge for fire assay (AAS finish) and a 30 g charge for multi-element analysis via ICP or acid digestion. DTH percussion drilling used 2 m composite samples, also pulverized for a 30 g fire assay charge; sample masses were undocumented but estimated at 3–5 kg. Most testing for both Pre and MMM drilling was conducted by ALS, using methods PM209 and AA26 for gold, and IC580 or ICP61 for multi-element analysis.
Drilling techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc.).</li> </ul>	<ul> <li>Exploration results are based on drilling programs using HQ/NQ core, reverse circulation (RC), and open hole DTH percussion methods. MMM RC drilling used 5.25" or 5.5" face sampling hammers, while Pre-MMM percussion drilling used a standard 5.25" DTH hammer. Early RC drilling likely used conventional hammers, though records are unclear. Pre-collars and surface casing were mostly 6" and set 3–8 m below surface.</li> </ul>
		<ul> <li>Recent core holes were oriented, and RC holes surveyed using a gyroscope. Pre-MMM RC holes (MMRC614–664) were surveyed with Humphrey or Eastman cameras. Boreholes PDH538–PDH612 were also directionally surveyed, though documentation describing the method used is not available.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Core recoveries for all diamond drill holes (DDH) were measured linearly, not by mass. MMM RC recoveries were estimated qualitatively based on geologist observations and sample bag volumes, with sample masses logged in the field and rechecked at the lab. Pre-MMM percussion and RC recoveries were not systematically recorded, though occasional notes mention "good" or "poor" recovery.</li> <li>RC drilling involved continuous 1 m sampling using a three-way splitter under the cyclone or a two-way self-splitting cyclone, with equipment cleaned between samples. For MMM drilling, any</li> </ul>



Criteria	JORC Code explanation	Commentary
		sample recovery variance was flagged to drillers in real time. HQ triple tube coring was used to maximize DDH core recovery.
		<ul> <li>No relationship between sample recovery and grade demonstrating bias has been identified at this stage.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All bores were geologically logged with sufficient detail for resource estimation, recording lithology, alteration, mineralisation, and weathering. Cored holes also include logging of anisotropies such as joints, fractures, and veins.</li> <li>Logging is qualitative and descriptive. Core photography was routinely done only for post-1999 drilling. Chip trays from all percussion and RC holes, along with remnant core, have been retained for reference.</li> </ul>
		<ul> <li>Approximately 100% of drilled intervals were logged, with intervals of no recovery clearly noted in logs and sample registers.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Core samples were half-split lengthwise for assay, while entire cores were used for selected metallurgical testing.</li> <li>MMM RC samples were collected using a three-way riffle splitter (1 m, ~3 kg). Pre-MMM RC samples (PDH83-PDH160) used a self-splitting cyclone (~5 kg), and percussion samples were manually riffle split (~3–5 kg). Most samples were dry, as logged.</li> <li>Field sub-sampling procedures for RC and DDH were generally industry standard. However, dewatering of wet Pre-MMM DTH percussion samples may have caused fine loss and introduced bias, though such intervals are a small portion of the database.</li> <li>All laboratory preparation followed standard procedures. MMM samples were processed at ALS Townsville; Pre-MMM samples were processed at ALS Brisbane (DDH1-PDH612) and Townsville (MMRC613-MMRC664). ALS procedures included drying, crushing to &lt;5 mm, and pulverizing to &gt;85% passing 75 µm.</li> <li>MMM RC QA/QC included blanks and duplicates inserted at ~1 per 20 m. Duplicates were created via cone-and-quartering; blanks were non-mineralized gravel with a distinct signature.</li> <li>Pre-MMM RC QA/QC (MMRC613-664) included standards (typically one per hole) and duplicates (one per 30-50 m). No</li> </ul>



Criteria	JORC Code explanation	Commentary
		documented QA/QC processes exist for Pre-MMM percussion drilling.  • Field duplicates were collected at 1 m intervals and monitored by the principal consultant. ALS also included internal QA/QC with blanks and certified reference materials; no significant issues were noted.
		<ul> <li>Microscopy and metallurgical work show gold is fine-grained; no coarse gold observed. The 5.25–5.5" hole diameter and 3–5 kg sample size over 1–2 m intervals is industry standard and appropriate for the mineralization style.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>MMM drilling used a 50 g charge for gold fire assay with ICP-AES (AA26), and 30 g sub-samples for 33-element analysis via 4-acid digest and ICP-AES. Over-limit results were re-assayed using suitable methods.</li> <li>Pre-MMM drilling used 30 g fire assays with AAS finish for gold (PM209) and acid digestion for multi-element analysis (IC580), standard practice in the 1980s–90s. Gold assay methods are considered total.</li> <li>No additional field based geophysical tools, spectrometers or handheld XRF instruments were used or relied upon for assay or laboratory QA/QC purposes.</li> <li>ALS currently applies QA/QC with certified reference materials, blanks, splits, and replicates; each 40-sample batch includes a blank, two replicates, and two standards. Barcoding ensures full chain-of-custody.</li> <li>ALS QA/QC protocols for Pre-MMM testing are undocumented, but repeat assays (especially for high-grade intervals) are present in the dataset</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>All sampled intersections are verified by the on-site geologist and subsequently checked by Geko-Co's principal consultant using drillhole metadata and QA/QC records. Final results are reviewed by MMM's exploration manager.</li> <li>Early mineralised intercepts have been validated through infill, extensional, and confirmatory drilling by multiple operators,</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>including MMM.</li> <li>There is no use of twinned holes at the Mt. McKenzie Area and any effects therein are not applicable.</li> <li>Primary data was collected in the field by the site geologist and technician, with lithological logging recorded digitally and sample data logged on field sheets. Data was digitized, validated against assay files, and reviewed by the principal geologist. Field and digital records are maintained, with data stored and error-checked in Explorer 3 software.</li> <li>Pre-MMM data was sourced from previous operators and, where possible, verified against historical reports lodged with regulators.</li> </ul>
		The available analytical data is not adjusted
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>All MMM drillhole collars were surveyed in the field by Terrex Spatial using RTK GPS referenced to a state control mark, with an accuracy of ±0.05 m in both horizontal and vertical axes. Boreholes were re-surveyed post-drilling.</li> <li>Pre-MMM drillholes were located using a local grid via total station or transit traverse, with coordinates later transformed to AMG66 (1999) and GDA94 (2015). A 2015 check survey of 230 historic holes found position discrepancies of a few cm to 5 m, attributed to grid transformation errors.</li> <li>MMM downhole surveys were conducted using a Surtron gyroscope (±0.25° azimuth, ±0.05° inclination). Eight holes were fully surveyed; five were surveyed 58–83% of total depth. Earlier holes (MMRC614–665, PDH538–612) were surveyed using Eastman or Humphrey cameras, though accuracy is not recorded.</li> <li>The grid system is GDA94 Zone 55; azimuths are magnetic with an 8.812° declination correction.</li> <li>Collar RLs and surface elevations were used to create a Digital Terrain Model (DTM). For the North Knoll area, a 2015 Terrex DTM was used; elsewhere, a 2007 UTS Geophysics aerial survey DTM (±2.5 m accuracy) was applied. Small elevation differences exist between the two DTMs but are within stated tolerances.</li> </ul>





Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Exploration data spacing ranges from 5 m to 50 m.</li> <li>The spacing and orientation are sufficient to define geological and grade continuity appropriate for the applied resource classifications.</li> </ul>
		Drillhole samples were not composited prior to assay; samples <2 m were composited to 2 m after assaying for resource estimation.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Drillholes were generally oriented appropriately to the principal mineralisation, which dips 60–80° west-southwest, with some vertical holes intersecting steep zones.</li> </ul>
		<ul> <li>Due to high drill density and well-defined mineralised extents, no significant sampling bias is expected from drill orientation.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>For MMM samples, field teams matched samples to records, sealed them in numbered plastic bags, secured them in bulker bags with submission sheets, and sent them directly to ALS Townsville via a transport contractor. ALS verified the manifest, barcoded, and tracked samples throughout analysis.</li> </ul>
		<ul> <li>Pre-MMM samples were placed in pre-numbered calico bags, tied, and packed into taped poly-weave sacks for transport to ALS Brisbane or Townsville.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No audits or reviews of sampling techniques have been conducted to date.</li> </ul>



# **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The assessment area lies entirely within MDL2008, a mineral development license held 100% by Mount Mackenzie Mines (MMM), a subsidiary of Resources and Energy Group (REG).</li> <li>The tenement area land is free of Native Title claims, strategic reserve, cropping, wilderness, or protected landscape restrictions.</li> </ul>
		<ul> <li>It is understood byn HGMC that at time of reporting the tenement is in good standing with no known impediments to operations under current license and environmental conditions. The reader should seek tenement ownership information form those tasked with reporting on legal matters.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The tenement was previously held under a joint venture between Smarttrans (formerly Coolgardie Gold) and Australian Reproductive Health Services (formerly Marlborough Gold Mines).</li> </ul>
		<ul> <li>Over time, multiple companies formed joint ventures over EPM10006, including Australian Consolidated Exploration (1975– 76), Utah Development (1981–82), Peabody (1984–85), Freeport McMoran (1987–89), Dragon Mining (1995), Coolgardie Gold/SmartTrans (1997–2014), Jeteld (2002–06), and Newcrest Mining (2007–08).</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>High-sulphidation epithermal gold deposit of Late Carboniferous age, associated with the Connors Magmatic Arc in Queensland's New England Fold Belt.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> </ul> </li> </ul>	All previous drilling relevant to providing material context to the current estimate have been used. No new exploration results relating to the Mt Mackenzie deposits are reported in this release.



Criteria	JORC Code explanation	Commentary
	<ul> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Tabulated intervals include all sections within mineralisation wireframes used for resource estimation. Grades were calculated as linear weighted averages without top cuts.</li> <li>A 0.3 g/t Au lower cut-off was applied, allowing up to 2 m of internal dilution below this threshold. Silver grades were reported as linear weighted averages over corresponding gold intervals, with no cut-off applied.</li> <li>Higher-grade sub-intervals may exist within broader mineralised zones.</li> <li>No assumptions were used for any reporting of metal equivalent grades at this stage and are therefore not applicable.</li> </ul>
Relationship between mineralisation widths and	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	<ul> <li>Mineralisation at North Knoll trends northwest with a westerly dip; recent drilling was oriented perpendicular to this trend. At South West Slopes, mineralisation also trends northwest but dips steeply to sub-vertical west.</li> </ul>
intercept lengths	• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').  Sample intervals are down reasonably represent mine vertical drilling means intervals.	<ul> <li>Sample intervals are downhole lengths. At North Knoll, these reasonably represent mineralisation widths. At South West Slopes, vertical drilling means intercepts may not reflect true thickness, which is addressed during wireframing for resource estimation.</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	Appropriately scaled plans and sections are included in the body of the report
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>Comprehensive reporting of all material data has been reported appropriately and attentions to relative scale and levels of verifiable precision.</li> </ul>



Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>A previously released resource upgrade report by REZ (May 2020) details geological observations, past investigations, geochemistry, and geophysical survey results.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Extensional drilling</li> <li>Validation drilling</li> <li>Further metallurgical testing</li> </ul>

# Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Pre-MMM drilling data was compiled by Terrasearch using Explorer3 software, with re-logging and data standardisation. A separate mid-2000s JV database was later reviewed by Geko-Co and merged after random checks. Historic collar positions were verified in the field using GPS, with accuracy within 0.5–4 m.</li> <li>For MMM drilling, sample records were created in the field, checked by the supervising geologist, digitised, and validated against ALS assay data. QA/QC samples were reviewed for sequencing accuracy.</li> <li>Data was managed in Explorer3, exported to Microsoft Access for resource estimation, and visually checked using Gemcom Xplorpac and Geosoft Target. Martlet performed additional validation for errors like missing or duplicate intervals and survey deviations.</li> <li>MMM results were compared with nearby Pre-MMM holes,</li> </ul>





		showing good consistency, supporting the reliability of historic
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>data.</li> <li>HGMC has not as yet carried out a site visit to the Develin Creek location. HGMC has some familiarity with the terrane and has previously carried out a site visit in October 2022 to the Mt. Chalmers Mine also operated by QMines in the same local region.</li> </ul>
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>Mount Mackenzie is a high-sulphidation epithermal system with extensive work since the 1980s supporting current interpretations. Resource estimation was based on broad mineralisation envelopes derived from geochemistry, alteration, and lithological logging.</li> <li>Interpretation used historic and 2015 drill data, including logging, assays, and prior models. An inverse relationship between gold and manganese guided inclusion of some low-gold zones based on low manganese values. Drill collars were aligned to topography before interpretation.</li> <li>A single resource model was developed through sectional and 3D interpretation, consistent with past interpretations. No alternative model significantly changes the overall resource.</li> <li>Mineralisation is controlled by pre-mineralisation permeability and post-mineralisation structural features, with no distinct boundaries. Multiple mineralisation envelopes constrained the estimate.</li> <li>Grade distribution is linked to lithological and structural permeability. The area has undergone multiple deformation phases, with NW-trending dextral faulting possibly offsetting mineralisation. The Coppermine Tuff unconformity is post-gold and dips west. In low drill-density areas, mineralisation was extrapolated up to half the typical hole spacing.</li> </ul>
Dimensions	<ul> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul> <li>The SW Slopes Resource is a single zone measuring 420m × 200m × 120m.</li> <li>The North Knoll Resource comprises multiple zones ranging from 50 m × 30m × 20m to 350m × 180m × 100m.</li> </ul>
Estimation and modelling techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or</li> </ul>	<ul> <li>Four broad sets of wireframe envelopes (zones) representing the Mt. McKenzie Gold (Au) mineralisation areas. These were interpreted based on the 0.3g Au/t delineation cut-off and adjusted according to localised anomalous Silver (Ag) and Copper (Cu) distribution changes.</li> <li>These 4 mineralisation zones were further subdivided into 14 AREA domains describing local changes in mineralisation</li> </ul>



- mine production records and whether the Mineral Resource estimate takes appropriate account of such data.
- The assumptions made regarding recovery of by-products.
- Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).
- In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
- Any assumptions behind modelling of selective mining units.
- Any assumptions about correlation between variables.
- Description of how the geological interpretation was used to control the resource estimates.
- Discussion of basis for using or not using grade cutting or capping.
- The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.

- geometry and orientation.
- HGMC has designated historically named 'North Knoll' zone as ZONE=1 and as the 'Southern Slope' zones as ZONE=2. ZONE=3 and 4 is comprised of the other remaining peripheral zones at depth and towards the South.
- All drill-hole assays were composited to 2m down-hole composites for normalisation and sample support.
- The spatial distribution of mineralisation within most wireframes and local AREA sub-domains is relatively predictable with relatively moderate coefficient of variation composite populations observed for the main Gold (Au) item. A small distance restriction to outlier grades for all analytical elements was applied to mitigate excessive extrapolation of high grades particularly in zones of low drilling density.
- The outlier grade threshold used for the distance restriction was applied at approximately the 98th percentile level. The Distances of restriction applied were derived from observations of downhole variography and used an approximate two times multiple of variogram range for the distance restriction.
- Variograms were modelled for each of the 14 AREA domains where possible or selected combined AREA domains where composite numbers were relatively low.
- Typical down-hole of 4.0m → 9.6m for Au, 5.6m → 8.4m for Ag and 6.0m → 9.2m for Cu.
- A 3D block model was generated using uniform block sizes with an associated Block Percentage value (~1% precision) to account to contained wire-frame volumes.
- The Block Size (SMU) selected Is 4m x 5m x 2.5 m size and represents a compromise to accommodate mineralisation zone size and complexity and also drilling / sampling density.
- Interpolation was carried out separately for analytical items for Au(g/t), Cu(ppm), Pb(ppm), Zn(ppm), Ag(g/t) and As(ppm) utilised 2m down-hole drill composites.
- Block grades were estimated using Ordinary Kriging using a single pass searches approach and a primary oriented search ellipsoid of 50m x 80m x 60m.
- Interpolation used a maximum of 24 composites and a maximum of 3 composite per drill hole.



- HGMC confirms that Gold is not strongly correlated with Copper (Cu), Lead (Pb), Zinc (Zn) or Arsenic (As). Gold appears to be show some correlation with Silver (Aq) but it is not strong.
- Though some anomalous Copper (Cu), Lead (Pb) Zinc (Zn), and Silver (Ag) grades are present these are not likely to hold any significant economic importance at this stage. The Silver (Ag) concentration present is likely can be recovered and will contribute towards the economic extraction of Gold (Au).
- The most recent previous resource estimate carried out historically used a nominal 0.3g Au/t delineation lower cut-off for interpretation which can be considered a level that is appropriate for a particular 'instance' in time and is dependent upon any given set of metal price and mineral processing and mineral recoveries at that time. Previously the total combined resource estimate using a 0.3g Au/t lower-cut-off reporting basis used by Resources and Energy Group Limited was:

3.42 Mt @ 1.18q g/t Au and 9.0 g/t Aq

The new HGMC estimate using a similar 0.3g Au/t lower cut-off reporting basis is :

4.49 Mt @ 1.180% g/t Au and 7.55 g/t Ag

This Is an approximate ~30% increase in tonnage with similar Au and slightly lower Ag grades being observed. Most of the tonnage increase is related to increased mineralisation volume changes following modelling all anomalous mineralisation that shows continuity above the 0.3g Au/t delineation cut-off level. Some tonnage increase is due to a small increase in bulk density values used particularly for the fresh / sulphide zones.

- No mining has been carried out within the Mt. McKenzie deposit to date.
- A limited number of assumptions have been made with respect to the recovery of by-products or individual metal species independently and it is expected that future refinement of these





Moisture	na	hether the tonnages are estimated on a dry basis or with tural moisture, and the method of determination of the oisture content.	•	will follow metallurgical testing programs.  No acid mine drainage or deleterious element studies have yet been commissioned.  The Develin Creek block model was validated by several methods, including visual validations on-screen, global statistical comparisons, trend analysis and SWATH plots.  The tonnages are estimated on a dry basis.  There is as yet no direct in-situ measurement data is used to assign a likely in-situ moisture content to any future mining production tonnages
Cut-off parameters		ne basis of the adopted cut-off grade(s) or quality arameters applied.	•	The classified Mineral Resource is reported beneath the current surface DTM topography consisting of tertiary cap surfaces. All reporting of Resources Is aligned using a Gold (Au) lower cut-off basis suitable for any future ore definition in an open pit mining and processing. This reasonably reflects the likely economic metal values and likely operating costs expected for processing from a standard CIP plant to produce Gold and beneficial Silver bullion products.
Mining factors or assumptions	mii ext pro eco the pai be	inimum mining dimensions and internal (or, if applicable, inimum mining dimensions and internal (or, if applicable, iternal) mining dilution. It is always necessary as part of the ocess of determining reasonable prospects for eventual onomic extraction to consider potential mining methods, but e assumptions made regarding mining methods and arameters when estimating Mineral Resources may not always a rigorous. Where this is the case, this should be reported with a explanation of the basis of the mining assumptions made.	•	The resource is estimated and reported principally with view to open pit mining basis assuming small-scale with standard milling and gold recovery by CIP/CIL. It may also be possible however to consider an appropriately scaled selective underground mining program aimed at some of the deeper mineralization.  The resource estimate assumes free selection of blocks nominally in the order of ~4m x 4m x 2.5m bench blocks following higher definition resolution of mineralisation through the use of grade control drilling and / or blast-hole sampling.  A minimum intercept with of 2m is used for modelling and estimation assuming open pit mining of ore could be undertaken on flitches down to 2.5m in height.  No mining dilution or ore loss factors have applied to the Mineral Resource.  Mineralisation Domain boundaries for mining are interpreted to be as low as a nominal 0.3g Au/t Gold (Au) lower cut-off which are also used as likely hard mining boundaries for preliminary reserves assessment.



Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	<ul> <li>Resources and Energy Group Limited previously reported that recovery factors were assumed for the cut-off grade calculations and open pit optimisation are based on leach extractive test-work on 15 variability composites available at the time (May 2020), and 5 master composites which were prepared from HQ bore core.</li> </ul>
Environmental factors or assumptions	<ul> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul> <li>No environmental impediments to the project are known. The primary material contains sulphide minerals in low quantities that would need to be contained during mining.</li> </ul>
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>Bulk density was estimated based on Archimedes method measurements carried out on 34 waxed core samples from two holes in the North Knoll zone; no measurements are available for SW Slopes. HGMC has used this information as the underlying bulk density assignment for the entire block model.</li> <li>The methods of measurements described by Resources and Energy Group Limited has accounted for voids; clay zones showed lower densities but were not spatially segregated thus average values were applied globally based on weathering and oxidation zone designation.</li> <li>Dry in situ bulk densities so assigned by HGMC for the main designated weathering / oxidation state material types are as follows:         <ul> <li>+ Completely oxidized: 2.1 t/m³</li> <li>+ Partially oxidized: 2.5 t/m³</li> <li>+ Fresh: 2.85 t/m³</li> </ul> </li> </ul>
Classification	The basis for the classification of the Mineral Resources into	The Mineral Resource for the Mt. McKenzie has been classified as





MIII4F2	Copper	/ COX / KINTO OTTO E METT
	<ul> <li>varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>Indicated in areas where the drilling grid is in the order of 20x20m to 25x25m.</li> <li>Most of the Inferred resources Is mineralised material outside of the Indicated resource zones where the drilling density Is nominally greater than 25m x 25m and out to approximately 50m spacing.</li> <li>All classified resources are constrained by the Interpreted 3D mineralisation wire-frame. No resources have been extrapolated beyond the wire-frame boundaries.</li> <li>Indicated excludes material below a below a depth of 150m from Topographic surface to account for a lower likelihood of economic viability.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul> <li>No external audits of the Mineral Resource estimate have been undertaken at this time. The resource model has been partially audited by QMines personnel as apart of operational optimisations and continuous improvement protocols.</li> </ul>
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>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.</li> <li>Documentation should include assumptions made and the</li> </ul>	<ul> <li>The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code.</li> <li>The relative accuracy of the Mineral Resource estimate is reflected in the classification of the Mineral Resource as Inferred and indicated when sufficiently drilled to 20m x 25m and out to 50m.</li> <li>Geostatistical methods to quantify the relative accuracy of the resource have not been undertaken.</li> <li>Historical drilling forms a large part of the data used to calculate the resource estimate. QA/QC procedures associated with this drilling were insufficient to form a view on their reliability. Resources and Energy Group Limited previously reported that confirmatory drilling by MMM suggested that a material bias is not</li> </ul>

procedures used. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.

- order of 20x20m
- erial outside of ensity Is nominally ly 50m spacing.
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- timate is reflected ferred and and out to 50m.
- ccuracy of the
- sed to calculate iated with this eliability. reported that confirmatory drilling by MMM suggested that a material bias is not likely in the North Knoll area.
- Collection of additional bulk density data could result in some small changes to local tonnages, however, a material impact on the global resource tonnage is unlikely.
- The cut-off used to determine the Mineral Resources was based on assumed mining and metallurgical factors that are preliminary in nature and require confirmation through feasibility work.
- The resource statement relates to the current global resource estimate.
- No significant previous mining has been caried out at Mt. McKenzie



therefore statements of relative accuracy or confidence of resource
estimates through mining reconciliation studies is not possible and
therefore not applicable at this stage.

# Section 4 Estimation and Reporting of Ore Reserves

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

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	<ul> <li>No Ore Reserves are estimated as part of the Mt McKenzie Scoping Study.</li> <li>For the purposes of this Scoping Study, the Mineral Resource estimate model used was generated by HGMC in April 2025 and announce by Q Mines on the 9<sup>th</sup> July 2025.</li> <li>This Mineral Resource estimate was prepared by Competent Persons in accordance with the JORC Code, 2012 Edition.</li> </ul>
Parties participating in the Scoping Study and site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The following parties have provided input to this Scoping Study.</li> <li>In-house Q Mines personnel.</li> <li>Minecomp Pty Ltd were engaged by Q Mines to complete the mining study work and assist with the Scoping Study.</li> <li>HGMC compiled the Mineral Resource estimate model upon which this Scoping Study is based.</li> <li>No site visits were undertaken by the Competent Person as it was considered that site visits would not materially affect the findings of the Scoping Study.</li> </ul>
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>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.</li> </ul>	<ul> <li>The type and level of study is a Scoping Study as defined in Section 38 of the JORC Code, 2012 Edition.</li> <li>The Scoping Study has not been used to convert Mineral Resources to Ore Reserves. Modifying factors in the form of mining dilution and mining recovery have been incorporated as an average rate of 5% and 5% respectively.</li> </ul>



Criteria	JORC Code explanation	Commentary
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.      The basis of the cut-off grade(s) or quality parameters applied.	<ul> <li>For the optimisation analysis the Cut-off grades were determined by Whittle optimisation software.</li> <li>The inputs utilised by the software to determine the cut-off grade were: -</li> <li>Revenue per unit of metal produced:  - \$A:\$US exchange rate: 0.63  - Au price: A\$5,000/oz  - Ag price A\$49.21/oz  - Cu price A\$15,238.10t  - Zn A\$4,761.90/t  - Py Concentrate price \$188.89/t</li> <li>Metallurgical Recoveries:  - Au metallurgical recovery: 93% Oxide, 81% Fresh  - Ag metallurgical recovery: 80% Oxide, 88% Fresh  - Cu metallurgical recovery: 0%, Oxide, 96% Fresh  - Zn metallurgical recovery: 0%, Oxide, 92% Fresh  - Py Concentrate: 5.6% Mass Pull Fresh Only</li> <li>Refining Charges:  - Au: A\$5.00/oz  - Ag A\$0.50/oz  - Cu A\$139.38/t (US\$0.04/lb)</li> <li>Royalties:  - Queensland Stage Government Royalty of 5% on all revenue</li> <li>Operating Costs per tonne of ore treated:  - Ore/Waste Mining cost differentials  - Grade Control costs  - Ore Haulage and Processing costs</li> </ul>
Mining factors or assumptions	<ul> <li>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).</li> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining</li> </ul>	mining dilution and ore loss.



Criteria	JORC Code explanation	Commentary
	<ul> <li>parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	<ul> <li>conventional open pit mining methods.</li> <li>Overall slope angles for the optimisation analysis have been determined from pit slope angles and berm and batter configurations found in other deposits which have similar geometries and similar geological settings. The Competent Person considers these appropriate for a study of this nature.</li> <li>No minimum mining widths have been applied.</li> <li>Inferred Resources were included in the Scoping Study</li> <li>Geological drilling: Further drilling is required to infill the drill spacing to improve the confidence of the Mineral Resource Estimates.</li> <li>All Mineral Resource categories have been included in the Scoping Study work.</li> <li>The Project will require infrastructure to be established to facilitate the mining activities This infrastructure will consist of, but not be limited to, power, office, workshop infrastructure.</li> </ul>
Metallurgical factors or assumptions	<ul> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</li> </ul>	<ul> <li>Ore will be processed off-site at the proposed QMines Mt Chalmers processing facility. The oxide ore will be processed using conventional CIP methods to extract the gold and silver from the ore. Flotation will be used to recover gold, silver, copper and zinc from the ore. The pyrite concentrate will be produced as a by-product of the flotation process. Both methods are tried and tested means of metal extraction from material of this nature.</li> <li>Both CIP and Flotation are proven metallurgical processes.</li> <li>Metallurgical Recoveries used for the Scoping Study are:         <ul> <li>Au metallurgical recovery: 93% Oxide, 81% Fresh</li> <li>Ag metallurgical recovery: 80% Oxide, 88% Fresh</li> <li>Cu metallurgical recovery: 0%, Oxide, 96% Fresh</li> <li>Zn metallurgical recovery: 0%, Oxide, 92% Fresh</li> <li>Py Concentrate: 5.6% Mass Pull Fresh Only</li> </ul> </li> <li>The metallurgical recoveries were based upon test work by ALS Metallurgy Perth in 2016 and 2017.</li> <li>No allowance has been made for deleterious elements.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>Any assumptions or allowances made for deleterious elements.</li> <li>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.</li> <li>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</li> </ul>	<ul> <li>No bulk sample test work has been carried out.</li> <li>No Ore Reserve has been estimated.</li> </ul>
Environmental	<ul> <li>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.</li> </ul>	<ul> <li>Waste rock characterisation studies are yet to be undertaken.</li> <li>Waste Dumps designs are still to be considered, however sufficient land tenure exists so to enable their establishment in line with environmental requirements.</li> <li>Tailings will be stored off site.</li> </ul>
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.	<ul> <li>The Scoping Study mine plan will require installation of infrastructure. The infrastructure requirements include: <ul> <li>Site offices and ablutions.</li> <li>Maintenance workshop and lay down area.</li> <li>Fuel storage area.</li> <li>Explosives magazine.</li> <li>Services including, electrical power (supply, transmission, and distribution), water and compressed air.</li> <li>Water storage dam.</li> <li>Dewatering pumping and pipeline.</li> <li>Waste storage facilities.</li> <li>Topsoil storage facilities.</li> <li>Haul roads.</li> </ul> </li> <li>Suitable and sufficient terrain exists for the supply and installation of all required infrastructure. As such the Competent Person sees no reason the infrastructure could not be installed at the site.</li> <li>Good regional access exists with the close proximity of the Bruce Highway and Marlborough Rd.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>Permission to use gazetted roads for haulage to the Mt Chalmers processing plant will require negotiation with the respective municipal councils.</li> <li>Mine dust suppression and pit dewatering have not yet been studied, and the water balance for the Project for mining only is still to be determined.</li> <li>The workforce will be sourced locally.</li> </ul>
Costs	<ul> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> </ul>	<ul> <li>No allowances have been made for capital and start-up costs in the optimisation analysis. The capital and start-up costs are comprised of but not limited to the costs associated with mobilisation, site establishment, pre-mining earthworks, access and haulage road construction and demobilisation.</li> <li>Operating mining costs, including grade control costs are based upon Q-Mines contemporary in-house knowledge</li> </ul>
		(based upon the Mt Chalmers PFS Study) or derived from Minecomp Pty Ltd's cost database for comparable projects. They reflect conventional truck and excavator open pit mining, utilising nominally 100t excavator loading Caterpillar 777 (approximately 90 tonne capacity) dump trucks and associated ancillary equipment.
	<ul><li>Allowances made for the content of deleterious elements.</li><li>The source of exchange rates used in the study.</li></ul>	<ul> <li>No allowances have been made for deleterious elements.</li> <li>Exchange rate estimate is derived from independent global and Australian finance institution forecasting.</li> </ul>
• The bo	<ul> <li>Derivation of transportation charges.</li> </ul>	<ul> <li>Ore and Concentrate transport costs are estimates from industry haulage contractors and calculated using kilometre/ore tonne metrics for road transport and</li> </ul>
	<ul> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> </ul>	<ul> <li>concentrate/tonne per kilometre metrics for road and rail haulage.</li> <li>TC and RC costs for concentrate are derived from cost metrics supplied by Transamine for benchmark TC and RC charges established each year between smelters and Freeport McMoran.</li> <li>Current TC RC charges have been applied to the models and</li> </ul>
		no forward forecasting has been applied for TC RC charges  Royalties are derived from the Queensland Treasury Department and were applied at the rate of 5% for all





Criteria	JORC Code explanation	Commentary
	<ul> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	products.
Revenue factors	<ul> <li>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.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	<ul> <li>Metal Commodity prices have been projected in USD to 2027 and are derived from independent sources and are consensus based from multiple independent forecasting global financial institutions.</li> <li>Production Target head grades have been established by Minecomp and derived from the open pit optimization analysis undertaken in conjunction with metallurgical testwork results produced by ALS.</li> <li>Transportation metrics have been derived from industry haulage contractors and calculated using kilometre/ore tonne metrics for road transport and concentrate/tonne per kilometre metrics for road and rail haulage.</li> <li>Rail haulage has been predicated on Queensland Rail Bulk Ore haulage costs Rockhampton to Gladstone port.</li> <li>Treatment and Refining Charge have been supplied by Transamine based on current TC RC benchmark pricing with a minimal discount applied by Transamine based on concentrate grades.</li> <li>Concentrate metal commodity payable price have been derived from consultation with Transamine for base and precious metals contained in concentrate and the payable scale for the metal estimated and derived from Transamine.</li> </ul>
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a</li> </ul>	<ul> <li>Gold price is influenced by a number of factors including economic conditions, geopolitical events and investor sentiment all make gold a safe-haven asset.</li> <li>The market window is unlikely to change.</li> <li>Price is likely to go up, go down or remain unchanged.</li> <li>Gold is not an industrial mineral.</li> </ul>



Criteria	JORC Code explanation	Commentary
Economic	<ul> <li>supply contract.</li> <li>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.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	<ul> <li>The Production Target is based upon optimisation analysis which incorporated all operating costs from mining operations, ore haulage, processing and transportation to a scoping study level of accuracy (+/-35%).</li> <li>Detailed financial modelling has not been completed.</li> <li>No discount rate has been applied.</li> <li>No sensitivity other than metal prices were conducted.</li> </ul>
Social	<ul> <li>The status of agreements with key stakeholders and matters leading to social licence to operate.</li> </ul>	Negotiations with key stakeholders are ongoing.
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>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.</li> </ul>	<ul> <li>No Ore Reserve has been declared.</li> <li>A risk review has been completed. No material naturally occurring risks have been identified.</li> <li>None known with WGR intending to sell gold produced from the operation at spot price.</li> <li>The Project is 100% owned by Western Gold Resources,</li> <li>All of the working area in the Scoping Study lies upon approved mining leases M53/1017 and M53/1018.</li> <li>Mining approvals for Eagle, Emu, Golden Monarch and Gold King have been received in in the consolidated Mining Proposal (Reg ID 123386).</li> <li>An amendment to the approved mining proposal which addresses modifications to the Gold King WRD and ROM locations in order to avoid heritage areas has been submitted and is awaiting approval (Reg ID 500089).</li> <li>Given that the mining proposal (Reg ID 123386) has been approved the Competent Person can see no reasons as to why the amended application will also be approved</li> <li>There are no third-party unresolved matters that may impact upon approvals.</li> </ul>
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>No Ore Reserve has been declared.</li> <li>Approximately 90% of the Production Target is derived from Indicated resource.</li> <li>The results appropriately reflect the Competent Persons view of</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	the deposit.  No Ore Reserve has been declared.
Audits or reviews	<ul> <li>The results of any audits or reviews of Ore Reserve estimates.</li> </ul>	No Ore Reserve has been declared
Discussion of relative accuracy/ confidence	<ul> <li>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.</li> <li>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.</li> <li>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.</li> <li>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</li> </ul>	<ul> <li>No Ore Reserve has been declared.</li> <li>All modifying factors have been applied on a global scale.</li> <li>Costs have been derived from both recent industry data and estimations from Minecomp Pty Ltd and Q-Mines in-house information.</li> <li>Cost estimate accuracy for the Scoping Study is considered to be in the order of ±35%.</li> <li>The mining and ore processing utilise proven and widely used technology and methods</li> <li>Pyrite concentrate values may have an impact on the on the findings of the Scoping Study</li> <li>No production data is available.</li> </ul>