

## ASX ANNOUNCEMENT

### Pickle Crow Gold Project, Canada

# Resource increases by 500,000oz to 2.23Moz at 7.8g/t

**Outstanding result catapults Pickle Crow to world-scale status; Exploration success driving immense value creation for shareholders, with 1.2Moz of Resource added since September 2020 at a cost of just A\$17.58/oz**

### KEY POINTS

- Highly successful drilling campaign results in the Inferred Resource at Pickle Crow increasing by 514,000oz to 2,230,000oz at 7.8 g/t gold
- The +30% increase comes just six months after the previous resource update
- Since September 2020, AuTECO has added 1.2Moz of Inferred Resource at a discovery cost of A\$17.58 (US\$12.59<sup>1</sup>) per Resource ounce
- The speed and low cost at which the Resource has grown highlights the quality and huge remaining growth potential of the Pickle Crow mineralised system
- The Resource is categorised based on two distinct styles of mineralisation:
  - The high-grade quartz vein component, which has increased to 1.92Moz at 9.3g/t
  - The alteration-hosted near-surface Resource, which is predominantly within Banded Iron Formation (BIF). This has increased to 304,000oz at 3.8g/t gold
- The 50,000m drill campaign continues, with more assays expected over coming weeks
- Regional exploration program ramping up, with three rigs allocated solely to a host of regional exploration targets
- AuTECO has \$10.5M cash as at 31 December 2021

Mineralisation Domain	Lower Cut-off	Tonnes (Mt)	Gold Grade (g/t)	Gold (Million oz)	Variance to 30 June 2021 Resource
Quartz Lodes	3.5g/t	6.4	9.3	1.92	+0.45Moz
Alteration Hosted (BIF)	2.0g/t	2.5	3.8	0.30	+0.06Moz
<b>TOTAL</b>		<b>8.9</b>	<b>7.8</b>	<b>2.23</b>	<b>+0.51Moz (+30%)</b>

AuTECO Inferred Mineral Resource Estimate as at 31 December 2021. Please refer to Appendix A JORC Table 1 for details of the Inferred Resource estimate. Note that all numbers are rounded

<sup>1</sup> Calculated at a AUD to USD exchange rate of 0.72

**AuTECO Minerals Ltd** (AUT.ASX) is pleased to report a 30 per cent increase in the Inferred Mineral Resource estimate at its Pickle Crow Project in Canada, taking it to 2.23 million ounces at a grade of 7.8g/t gold.

This estimate comprises a high-grade quartz vein component of 1.92Moz at 9.3 g/t and a broader near-surface alteration / banded iron hosted mineralisation style that contains 304,000oz at a grade of 3.8 g/t.

AuTECO Executive Chairman Ray Shorrocks said: *“Pickle Crow has joined an exclusive club of global gold companies with a resource base of more than 2Moz in a tier-one location.*

*“It speaks volumes about the quality of the Pickle Crow system that we added more than half-a-million ounces to the resource in just six months and at a cost of less than A\$20/oz.*

*“This means we have created substantial value for shareholders and also demonstrates the immense potential for ongoing increases in the inventory”.*

A total of ~30,000m of additional drill information was used to inform the revised year-end estimate that was prepared in accordance with the JORC Code (2012 Edition) by independent mining consultants Cube Consulting Pty Ltd.

In the 16 months between September 2020 and December 2021, AuTECO has added 1.23Moz of gold to the Inferred Resource at a total discovery cost of A\$17.58 (US\$12.59) per Resource ounce.

AuTECO is now ramping up drilling to test some of the early-stage regional targets on the 500sqkm of tenure managed the Company in the Pickle Lake district. Three drill rigs are currently engaged on early-stage regional programs, with results expected in the June quarter.

## **ABOUT THE EXPLORATION & GROWTH PROGRAM**

Based on the outstanding results achieved in the mid-year 2021 Resource update, the board of AuTECO approved an additional 50,000 metres of drilling that commenced in June 2021. The key strategic objectives of the drill program (Figure 1) demonstrate AuTECO’s continued commitment to the dual pathways of driving near-mine Resource growth combined with early-stage exploration and discovery drilling on the 500 square kilometres of regional tenure.

To date ~42,000 metres of the current program has been drilled, with the final 8,000 metres of the program forecast to be completed in March 2022. There are currently 5 diamond drill rigs on site taking advantage of favourable drill access conditions during the Canadian winter.

The initial focus of program was on near mine discovery, extension and infill drilling that was used to calculate the Resource estimate as at 31 December 2021.

Focus has now shifted to the regional targeting, with three of the five active drill rigs testing targets outside of the Resource area. Results from the regional campaign are expected in the June quarter.





**Figure 1:** Current AuTECO strategic work plan and key objectives from July 2021 until the release of the year end Resource update in February 2022. Please note that timeframes are indicative.

## RESULT FROM THE GROWTH AND EXPLORATION CAMPAIGN

The December 2021 Resource update is the culmination of the highly successful drill campaign undertaken by AuTECO in the near-mine area at Pickle Crow. At the time of the Resource data cut-off in early December 2021, a total of 29,883 metres of drilling had been completed and utilised to inform the revised Resource estimate.

Results of the drilling have been regularly released to keep the market fully informed of progress (see ASX Releases dated 15 July 2021, 2 August 2021, 5 October 2021, 2 December 2021 and 18 January 2022).

During the current campaign, exceptional progress has been made in the discovery and extension of high-grade quartz vein lodes. Historical production at Pickle Crow from the quartz vein style of mineralisation totalled 1.5Moz at 16.1 g/t gold. Highlights reported during the current 50,000 metre campaign include, but are not limited to:

- **1.8m @ 21.2 g/t gold from 838m in hole AUDD0166W1** (15 July 2021)
- **3.3m @ 15.9 g/t gold from 31.8m in hole PG-G03A** (2 August 2021)
- **2.8m @ 17.9 g/t gold from 578.3m in hole AUDD0173** (5 October 2021)
- **1.0m @ 30.1 g/t gold from 546m in hole AUDD0152** (5 October 2021)
- **2.0m @ 68.3 g/t gold from 470.7m in hole AUDD0200** (2 December 2021)
- **2.1m @ 31.8 g/t gold from 246.4m in hole AUDD0229** (2 December 2021)
- **4.1m @ 11.2g/t gold from 423.8m in hole AUDD0200** (2 December 2021)
- **7.3m @ 33.3 g/t gold from 9.4m in AUDD0246** (18 January 2022)
- **1.5m @ 35.2 g/t gold from 541.5m in AUDD0227** (18 January 2022)
- **4.0m @ 11.0 g/t gold from 205.8m in AUDD0240** (18 January 2022)

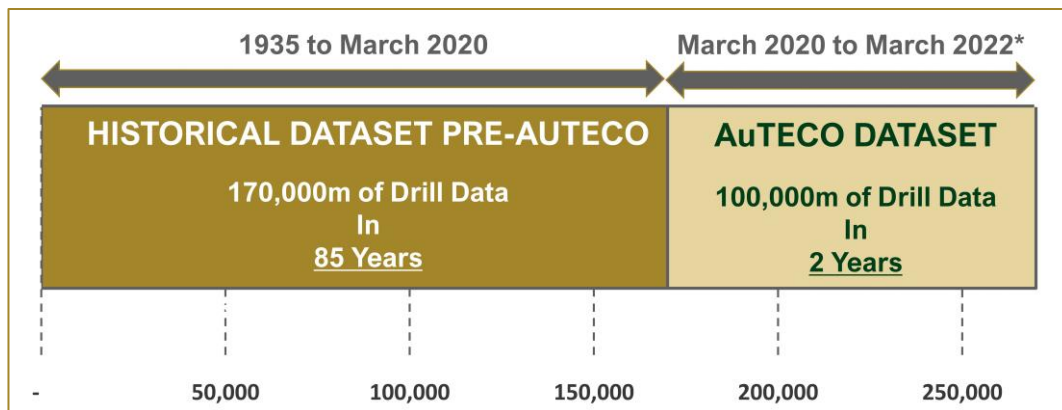


AuTECO has recognised the significance of alteration hosted mineralisation in the Pickle Crow district that is typically expressed as broad zones of sulphides within reactive host rocks (typically Banded Iron Formation and lesser Porphyry). This style of mineralisation is potentially amenable to bulk mining methods including open pit extraction and bulk stoping from underground. Key results reported during the current campaign include, but are not limited to:

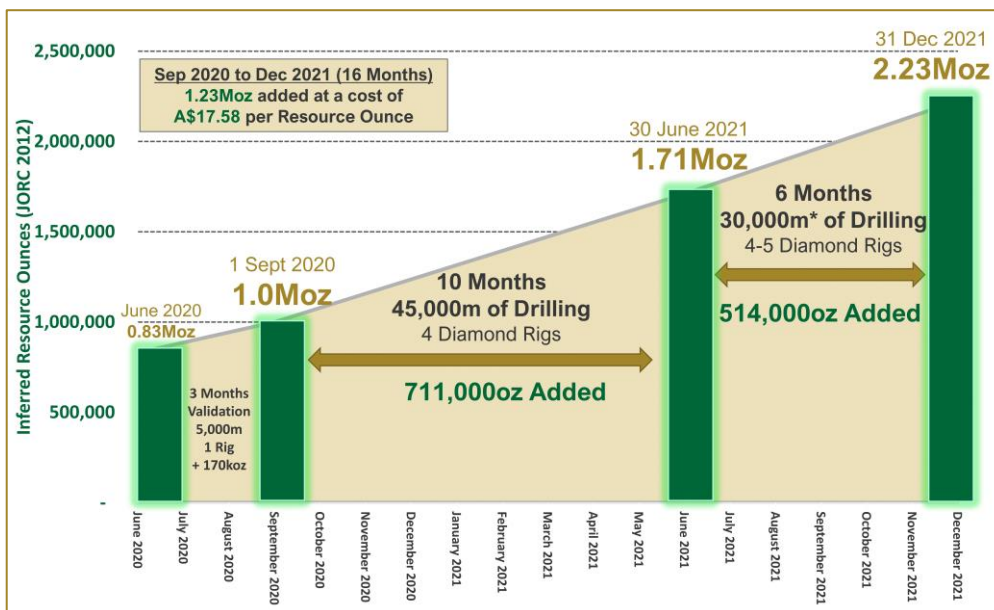
- **10.5m @ 3.6 g/t gold from 126m in hole AUDD0140** (2 August 2021)
- **19.5m @ 3.3 g/t gold from 340.7m in hole AUDD0220** (2 December 2021)
- **25.2m @ 1.3 g/t gold from 166m in hole AUDD0228** (18 January 2022)

The strong investment in drilling since AuTECO assumed management control of the project in March 2020 (Figure 2) has resulted in rapid and sustained low-cost Resource growth (Figure 3).

In the 16 months between September 2020 and December 2021, a total of 1.23Moz of gold was added to the inferred Resource at a total average cost of A\$17.58 (US\$12.59) per ounce.



**Figure 2:** Cumulative drill metres in the Pickle Crow dataset. This demonstrates the significant investment in targeted drilling made by AuTECO that has enabled the rapid increase in Resource since assuming project management in 2020. \*Note: to date ~92,000m has been completed, and this number is a forecast based on the anticipated completion of the current 50,000m drill program in March 2022.



**Figure 3:** Graph demonstrating the rapid and sustained Resource growth achieved by AuTECO since assuming management control of the project in March 2020





## ABOUT THE MINERAL RESOURCE ESTIMATE

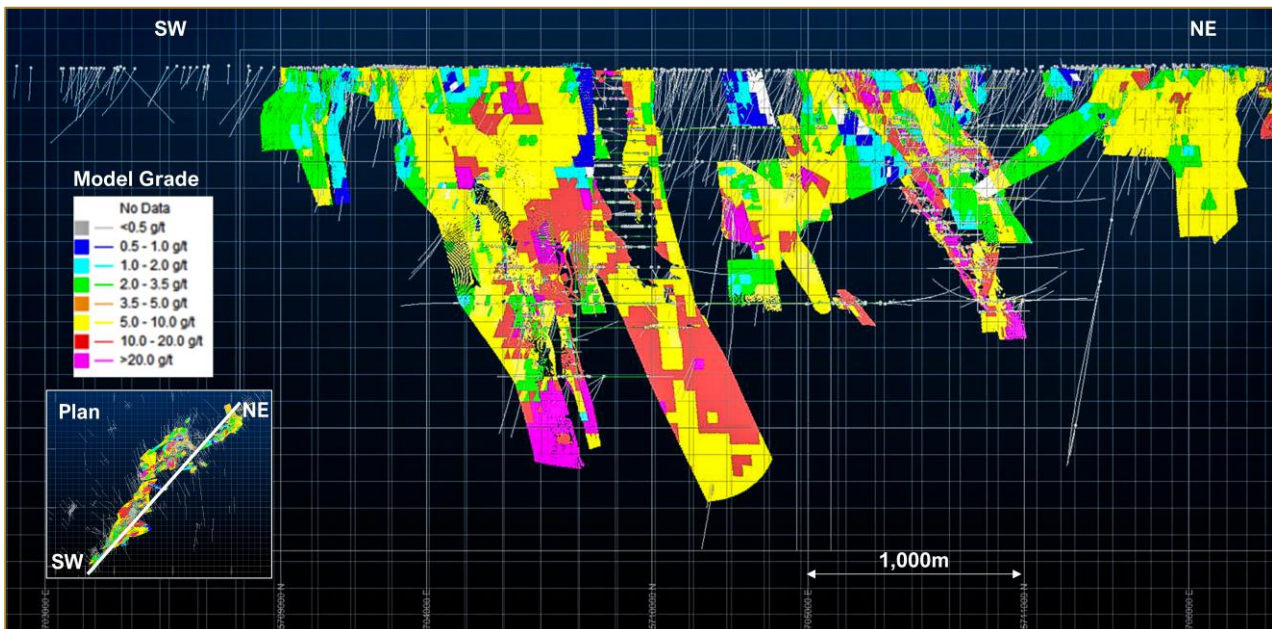
The revised Resource estimate as at 31 December 2021 is summarised in Table 1.

Mineralisation Domain	Lower Cut-off	Tonnes (Mt)	Gold Grade (g/t)	Gold (Million oz)	Variance to 30 June 2021 Resource
Quartz Lodes	3.5g/t	6.4	9.3	1.92	+0.45Moz
Alteration Hosted (BIF/ Alb)	2.0g/t	2.5	3.8	0.30	+0.06Moz
<b>TOTAL</b>		<b>8.9</b>	<b>7.8</b>	<b>2.23</b>	<b>+0.51Moz (+30%)</b>

**Table 1:** AuTECO Inferred Mineral Resource Estimate as at 31 December 2021. Please refer to Appendix A JORC Table 1 for details of the Inferred Resource estimate. Note that all numbers are rounded

The Resource has been independently estimated by Cube Consulting Perth (see Competent Person statement). The estimate has been produced by 3D modelling of the lode systems and block model grade estimation using a combination of the 2D estimation modelling approach and 3D dynamic interpolation, both using Ordinary Kriging (OK) and Inverse Distance to the power of 2 (ID<sup>2</sup>). A full summary of the resource methodology and validation is included in the Appendix A JORC table. All project resources have been classified as Inferred based on current drill spacing and the historical drill results, which will require further supporting verification drilling and QAQC insertion. It is anticipated that Infill drilling and verification drilling will support an increase in resource classification.

The spatial distribution of gold grades in the Resource model and drill data is shown in Figure 4.



**Figure 4:** Isometric view of the block model showing drill data density and distribution of grades within the Inferred Mineral Resource model. Please refer to JORC Table 1 Section 3 for details of the Resource Estimate



## Variance to Previous Estimates

### Comparison to Mid-Year 2021 Mineral Resource Estimate

The variance between the December 2021 and the June 2021 Mineral Resource Estimates is summarised in Table 2. The updated Resource estimate at 31 December 2021 differed compared to the June 2021 MRE based on the following factors:

- New drilling information from 2021 drilling programs completed by Auteco since the June 2021 MRE – 71 holes for 29,883m of NQ diamond core drilling.
- Updated interpretation of the shallow mineralisation zones, including the shallow BIF hosted mineralisation within the #1 Shaft area and Porphyry hosted mineralisation within the Albany shaft area – 34 domains updated for the December 2021 MRE.
- New mineralisation zones interpreted - 5 quartz vein hosted domains in the #1 shaft area.
- Increase in cut-off grade for lodes in the Albany area based on selective zones noted in the area (2.0g/t COG used in the June 2021 estimate, increased to 3.5g/t for the December 2021)

Variance between December 2021 and June 2021 Inferred Resource Estimates			
Domain	Tonnes '000	Grade g/t	Ounces '000
Quartz Veins	+1,917 (+42.4%)	-0.82g/t (-8%)	+453 (+31%)
Alteration / BIF	+406 (+20%)	+0.17g/t (+5%)	+61 (+25%)
<b>TOTAL Δ</b>	<b>+2,323 (+35%)</b>	<b>-0.31g/t (-4%)</b>	<b>+514 (+30%)</b>

**Table 2:** Comparison between the December 2021 and June 2021 Mineral Resource estimates

## Summary of JORC Table 1

A summary of JORC, Table 1 is provided below for compliance with the Mineral Resource and in-line with the requirements of ASX listing rule 5.8.1

### Geology & Geological Interpretation

The Archean Pickle Crow Orebody consists of 91 separate high to medium grade, lode gold domains hosted across a variety of different lithologies ranging from Pickle Crow Basalts, through Banded Iron Formation and Porphyry units. There is sufficient confidence in the geological modelling of the orebody geometries for Inferred Resource Estimation, with variable confidence dependent on drilling density, geological confidence and historical QAQC.

The Mineral Resource sits within an area of 3,800m strike (in a NE direction) of the core mine trend and within an 800m section of stratigraphy and has been interpreted to extend at its maximum 1,500m below surface in close proximity to where the underground development stops.



## Drilling Techniques, Sampling and Assaying

Drilling included in the Resource Estimation at Pickle Crow consists of historical surface and underground drilling. Overall, 4,104 holes for 441,473 m of mainly diamond drilling are incorporated into the database with 3,080 holes for 129,000 m drilled from underground prior to 1988 and the remainder from surface. A total of 239 NQ Diamond drill holes for 74,913 m have been completed by AuTECO in 2020 and 2021 and have been incorporated into the December 2021 resource estimation.

Core was cut in half with one half retained as a reference, and the other sent for assay. Assays from diamond drilling post 1981 are Fire Assay results from various accredited Canadian laboratories. Historical assay methods prior to this are unknown but have been verified by duplicate sampling by historical operators at the project.

Post 2008, samples were dispatched to ALS Chemex for gold by 50g Fire Assay with atomic absorption finish. Samples greater than 5g/t gold were re-assayed by 50g Fire Assay with gravimetric finish. All samples greater than 10g/t gold were additionally sent for pulp metallica (950g).

AuTECO drilling samples were dispatched to AGAT laboratories for assay by 30g Fire Assay with atomic absorption finish. Samples greater than 5g/t gold were re-assayed by 50g Fire Assay with gravimetric finish. All samples greater than 0.2g/t gold have additionally been sent for pulp metallica (1000g) but results have not yet been received.

## Estimation Methodology

The MRE has been produced by 3D modelling of the lode systems and block model grade estimation using a combination of 2D estimation modelling approach and 3D dynamic interpolation (DK), both using OK and ID<sup>2</sup>. The estimation methodology is briefly summarised as follows:

- The primary estimation domains are based on the 3D geological wireframing of quartz veins and BIF hosted mineralisation provided by Auteco. The domain interpretations were based on historical UG mining knowledge of the steeply dipping quartz veining known to host gold mineralisation from drill logging and descriptions of mapping and sampling.
- The mineralised domains acted as a hard boundary to control the December 2021 MRE.
- Drill hole sample data was flagged using domain codes generated from 3D mineralisation domains. Sample data was composited over the full downhole interval and there were consequently no residuals. Intervals with no assays were assigned background grades for the compositing routine as these un-assayed intervals in the drill holes were assumed to be waste.
- Gold grade distributions within the estimation domains were assessed to determine if high grade cuts or distance limiting should be applied on a domain-by-domain basis. The influence of extreme grade values was reduced by top-cutting where required. The top cut levels were determined using a combination of top-cut analysis tools (grade histograms, log probability plots and CVs). Top cuts were reviewed and applied on a domain basis.
- The 2D estimation approach using OK was deemed appropriate for the very narrow, linear, and continuous zones hosted by quartz veins. Interval composites were generated for the mineralised lode, which were then weighted by their respective widths to calculate an accumulation variable. The accumulation variable for gold was then used for variogram analysis and 2D interpolation of gold grades. The estimated 2D block values were then





exported back into 3D space.

- Several quartz vein hosted domains show ribbon-like structures and although the overall dip and dip direction of most of the lodes are consistent, there are enough changes in geometry to require locally varying search ellipse and variogram directions. The dynamic anisotropy search feature in Surpac was used in which the search neighbourhood ellipse dip and dip direction are defined separately for each block approximating the orientation of each of the mineralised zones.
- For mineralised domains estimated using 2D OK method, variogram ranges and search distances were defined in a rotated horizontal plane. For the 3D DK method, variogram modelling was conducted to provide nugget, sill and range for 3 directions. Variogram maps were initially analysed in plan, east-west and north-south section to confirm continuity trends and to refine parameters for experimental variogram calculation.

Block model validation was conducted by the following means:

- Visual inspection of block model estimation in relation to raw drill data on a section-by-section basis.
- Volumetric comparison of the wireframe/solid volume to that of the block model volume for each domain.
- A global statistical comparison of input and block grades, and local composite grade (by northing and RL) relationship plots (swath plots), to the block model estimated grade for each domain.

## Bulk Density

A bulk density was assigned based on test work completed by previous operator's PC Gold Inc. as follows:

- Mineralised quartz veins =  $2.7\text{g/cm}^3$
- BIF hosted mineralisation =  $3.21\text{g/cm}^3$
- Porphyry hosted mineralisation =  $2.83\text{g/cm}^3$

## Classification

The Mineral Resource has been entirely classified as Inferred. The classification is based on the relative confidence in the mineralised domain countered by high nugget values, variable drill spacing, un-verifiable historical database and partial lack of historical QAQC.

## Mining Factors or Assumptions

- Both open pit and underground mining is assumed due to the shallow nature of major mineralisation zones.
- Extensive underground mining operations have previously taken place with historical documentation providing good background information for future mining considerations.
- Pit optimisation studies are currently being undertaken by Cube in February 2022





## Metallurgical Factors or Assumptions

Initial metallurgical test work was completed by previous operators on the high-grade vein mineralisation at Pickle Crow and can be summarised as:

- Excellent total gold extractions to a maximum exceeding 99% through a combination of gravity and 48-hour cyanide leach bottle rolls
- Excellent gravity recoveries of up to 92.4% of total gold recovered by the Knelson Concentrator prior to cyanide leaching.

These results are in line with the historical performance of the Pickle Crow Gold mine which operated between 1935 and 1966 with recoveries averaging slightly over 98% recovered through a combination of gravity and cyanidation.

## Reporting Cut-Off Grade

A 2.0 g/t cut-off grade was used to report the potential Open Pit Mineral Resources and a 3.5g/t cut-off grade was used to report the Underground Mineral Resources. The cut-off grades are estimated to be the minimum grade required for economic extraction at current prices.

Given the depth, width and grade of the deposit AuTECO Minerals Ltd. considers that the mineralisation incorporated into the resource estimation has a reasonable prospect of eventually being mined, particularly when considering the high-grade resources are close to existing underground infrastructure and in proximity to existing highways and commercial power lines. In addition, there is already a successful history of commercial production at the Pickle Crow Gold Mine which produced 1.5 Million oz @ 16g/t Gold between 1935 and 1966 before eventual closure.

## FORWARD WORK PLAN

The company intends to continue with a dual-tracked approach to drilling for the remainder of 2022, with a combination of extensional in-mine Resource growth drilling and regional exploration.

The current 50,000m drill program is forecast to be completed in March 2022. With the Resource successfully delivered, the remaining drill metres will be focused on regional exploration targets in addition to extensional drilling at the Tyson vein discovery. 5 rigs will continue to take advantage of favourable drill conditions during the Canadian winter at least until the end of March 2022.

Given the success of the drill program to date, drilling will continue beyond the current 50,000m.

Pathway to production activities will focus on detailed assessment of the near surface potential for open pit mining. The ore zones will be re-modelled at an 0.5g/t cut-off grade and reblocked at SMU's suitable for open pit assessment. Expressions of interests have been forwarded to numerous engineering firms for high level assessment of options to re-establish access to underground for infill drilling of the Inferred Resource.



AuTECO had A\$10.5M in cash at the end of December 2021, and will utilise these funds to continue with the exploration and growth program.

For and on behalf of the Board.

A handwritten signature in black ink, appearing to read 'RS' followed by a long horizontal stroke and a final 'S'.

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## ABOUT AUTECO MINERALS

AuTECO Minerals Ltd (ASX: AUT) is an emerging mineral exploration company focused on advancing high-grade gold resources at the Pickle Crow Gold Project in the world-class Uchi sub-province of Ontario, Canada.

The Pickle Crow Gold Project currently hosts a JORC 2012 Mineral Resource of 2.23 Moz at 7.8 g/t gold, with a 50,000m drilling program underway to expedite Resource growth.

Pickle Crow is one of Canada's highest-grade gold mines – historically producing 1.5 Moz at 16 g/t gold.

The Company also has a joint venture on the Limestone Well Vanadium-Titanium Project in Western Australia.

For further information regarding AuTECO Minerals Ltd please visit the ASX platform (ASX:AUT) or the Company's website <https://www.autecominerals.com>

## COMPETENT PERSONS STATEMENT

The information in this announcement that relates to the Mineral Resource Estimate and previous exploration results is based on and fairly represents information and supporting information compiled and reviewed by Mr Darren Cooke, who is a Member of the Australasian Institute of Geoscientists. Mr Cooke is a full-time employee of the Company and has sufficient experience in the style of mineralisation and type of deposit under consideration and qualifies 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 Cooke holds securities in AuTECO Minerals Limited and consents to the inclusion of all technical statements based on his information in the form and context in which it appears.



The information in this announcement that relates to the Mineral Resource Estimate is based on and fairly represents information and supporting information compiled by Mr Brian Fitzpatrick. Mr Fitzpatrick is a full-time employee of Cube Consulting Pty Ltd, who specialises in mineral resource estimation, evaluation and exploration. Neither Mr Fitzpatrick nor Cube Consulting Pty Ltd holds any interest in AuTECO Minerals Ltd, its related parties, or in any of the mineral properties that are the subject of this announcement. Mr Fitzpatrick is a member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person (or “CP”) as defined in the 2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Mr Fitzpatrick has reviewed the contents of this ASX announcement and consents to the inclusion in this announcement of all technical statements based on his information in the form and context in which they appear.

## DISCLAIMER

References to previous ASX announcements should be read in conjunction with this release.

## FORWARD LOOKING INFORMATION

Various statements in this announcement constitute statements relating to intentions, future acts and events. Such statements are generally classified as “forward looking statements” and involve known and unknown risks, uncertainties and other important factors that could cause those future acts, events and circumstances to differ materially from what is presented or implicitly portrayed herein. The Company gives no assurances that the anticipated results, performance, or achievements expressed or implied in these forward-looking statements will be achieved.

## APPENDIX A - JORC CODE, 2012 EDITION

**Table 1 – JORC Code 2012 Edition**

**Section 1 Sampling Techniques and Data** (Criteria in this section apply to all succeeding sections.)

Note - Although no new results are reported in this release, this section describes the data utilised in the Mineral Resource Estimate

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <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 (eg ‘reverse circulation drilling was used to obtain 1m samples from</li> </ul>	<ul style="list-style-type: none"> <li>Drilling since 2008, quoted with PC- prefix is from PC Gold exploration with NQ diameter (47.6mm) drill core was recovered from drilling. Noramco drilling, CP- prefix is BQ diameter (36.5mm). All other quoted intercepts and the bulk of historical drilling data is of NQ diameter including AuTECO drilling subject to this release (prefix AUDD**).</li> <li>The core was sawn in half following a sample cutting line determined by geologists during logging and submitted for analysis on nominal 1m (1ft for historical drillholes) intervals or defined by geological boundaries determined by the logging geologist.</li> <li>Samples from PC Gold holes (PC- prefix) post 2008 were submitted to ALS Chemex in Thunder Bay and North Vancouver for analysis. Samples were prepared for analysis using a jaw crusher which was cleaned with a silica abrasive between samples resulting in 90% of the sample passing through an 8 mesh screen. A split of the crushed sample weighing 1000g was then pulverised to 90% passing a 150 mesh screen. Sample pulps were analysed for gold by Fire Assay using 50g sample charge</li> </ul>





Criteria	JORC Code explanation	Commentary
	<p>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.</p>	<p>with atomic absorption spectroscopy (AAS) finish. If the returned assay result was equal to or greater than 5g/t then the sample was re-assayed by Fire Assay with a gravimetric finish. Samples from historical diamond drilling programs conducted between 1981 and 2008 were dispatched to a variety of accredited laboratories in Canada for Fire Assay analysis. Historical drill results prior to 1981 are Fire Assay conducted by unknown laboratories (most likely the mine laboratory during the operational life of the Pickle Crow Mine) and with unknown preparation methods and assay charge, however previous operators have duplicated and verified results. Recent sampling by AuTECO Minerals on drill holes subject to this release (prefix AUDD**) were submitted to AGAT Laboratories, Thunder Bay for analysis. Auteco samples undergo the same preparation and analysis techniques previously used for PC Gold.</p> <ul style="list-style-type: none"> <li>All samples &gt;10g/t gold and samples collected from PC gold drilling (PC- prefix) suspected of nugget gold were additionally sent for pulp metallica analysis.</li> <li>For a more complete discussion of historical sampling techniques see document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (<a href="http://www.sedar.com">www.sedar.com</a>) for First Mining Inc.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Drilling quoted with PC- prefix is from PC Gold exploration with NQ diameter (47.6mm) drill core was recovered from drilling. Noramco drilling, CP- prefix is BQ diameter (36.5mm). All other drilling is NQ diameter including Auteco drilling subject to this release (prefix AUDD**).</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>All drilling quoted is NQ diamond core (including Auteco drilling subject to this release -prefix AUDD**) with the exception of Noramco drillholes (CP- prefix). RQD was recorded for all diamond drilling as per industry standard. A review of the available diamond drill core RQD's from the Pickle Crow project (PC- prefix and recently completed Auteco drilling - AUDD* prefix) indicated that nearly all of the holes produced excellent recoveries with an average of &gt;90%. For drilling conducted by other operators recoveries are unknown although reports do not highlight significant core loss.</li> <li>A review of RQD results does not highlight a relationship between sample recovery and grade or highlight any sample bias due to loss of material.</li> </ul>
Logging	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>All PC Gold and Auteco samples (PC- and AUDD* hole prefix) were geologically logged. Lithology, veining, alteration, mineralisation and weathering are all recorded in the geology table of the drill hole database. Other historical drillholes have been similarly logged and records have been digitised from report format.</li> <li>Geological logging of Diamond Core samples is qualitative and descriptive in nature.</li> <li>All holes quoted have been logged in their entirety.</li> </ul>



Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• All drilling quoted from PC Gold and Auteco exploration (PC-and AUDD* hole prefix) is. NQ diameter (47.6mm) drill core recovered from drilling. All other quoted intercepts are NQ diameter with the exception of Noramco drilling (CP- Prefix) which is BQ (36.5mm) diameter. The core was sawn in half following a sample cutting line determined by geologists during logging and submitted for analysis on nominal 1m (or 1ft) intervals or defined by geological boundaries determined by the logging geologist.</li> <li>• This sampling technique is industry standard and deemed appropriate.</li> <li>• PC Gold QA/QC protocols include the use of crush duplicates, ¼ core field duplicates, the insertion of certified reference materials (CRM's) including low, medium and high-grade standards and coarse blanks. This was accomplished by inserting the QA/QC samples sequentially in the drill core sample numbering system. One set of the four QA/QC types were inserted every 30 samples consisting of 1 crush duplicate, 1 ¼ split field duplicate, 1 CRM (altering between low, medium and high standard) and 1 blank. This resulted in approximately every seventh sample being a QA/QC sample. Auteco minerals (AUDD* prefix holes) follows the same QA/QC protocols but with CRM's and duplicates inserted every 25 samples. QAQC procedures are not disclosed in previous reporting but results are consistent with visual observations of mineralisation as recorded in the geological logs and qualitative proportions of logged veining and sulphide content. Post-Mining Pickle Crow Property operators employed the usual in-laboratory blanks, standards and duplicate analyses to ensure precision and accuracy of results. Whilst there is no documentation available for earlier results sample duplicate verification has been conducted.</li> <li>• Sample size is deemed industry standard for Orogenic Gold deposits.</li> <li>• For a more complete discussion of historical sampling techniques and sample preparation see document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (<a href="http://www.sedar.com">www.sedar.com</a>) for First Mining Inc.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Samples were submitted to ALS Chemex in Thunder Bay and North Vancouver for analysis. Samples were prepared for analysis using a jaw crusher which was cleaned with a silica abrasive between samples resulting in 90% of the sample passing through an 8 mesh screen. A split of the crushed sample weighing 1000g was then pulverised to 90% passing a 150 mesh screen. Sample pulps were analysed for gold by Fire Assay using 50g sample charge with atomic absorption spectroscopy (AAS) finish. If the returned assay result was equal to or greater than 5g/t then the sample was re-assayed by Fire Assay with a gravimetric finish. Samples from historical diamond drilling programs conducted between 1981 and 2008 were dispatched to a variety of accredited laboratories in Canada for Fire Assay analysis. Historical drill results prior to 1981 are Fire Assay conducted by unknown laboratories (most likely the mine laboratory during the operational life of the Pickle Crow Mine) and</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>with unknown preparation methods and assay charge, however previous operators have duplicated and verified results. Recent sampling by Auteco minerals on drill holes subject to this release (prefix AUDD**) were submitted to AGAT Laboratories, Thunder Bay for analysis. Auteco samples undergo the same preparation and analysis techniques previously used for PC Gold.</p> <ul style="list-style-type: none"> <li>• In addition to the Company QAQC samples (described earlier) included within the batch the laboratory included its own CRM's (Certified Reference Materials), blanks and duplicates.</li> <li>• Sample assay results continue to be evaluated through control charts, log sheets, sample logbook and signed assay certificates to determine the nature of any anomalies or failures and failures were re-assayed at the laboratory. Check assaying was also conducted on 1 in every 20 samples. QAQC protocols are unknown for historical drill programs (without the PC- hole prefix).</li> <li>• QA/QC work is industry standard and acceptable levels of accuracy and precision have been established.</li> <li>• For a more complete discussion of QA/QC techniques and levels of accuracy obtained from historical sampling see document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (<a href="http://www.sedar.com">www.sedar.com</a>) for First Mining Inc.</li> </ul>
<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Historically significant intersections quoted have been verified by Independent Geological Consultants Micon International Limited. For more details see document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (<a href="http://www.sedar.com">www.sedar.com</a>) for First Mining Inc.</li> <li>• There are no twinned holes in the dataset but a comparison of the results of different drilling generations showed that results were comparable. In addition, previous operators have duplicated and verified results by re-sampling historical core. For more details see document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (<a href="http://www.sedar.com">www.sedar.com</a>) for First Mining Inc.</li> <li>• For PC Gold drilling (PC- prefix), once all logging data was completed, core marked up, logging and sampling data was entered directly into the Gems Logger program (an MS Access-based database and stored on the onsite server. At approximately weekly intervals the server onsite was synchronised with the main server in Thunder Bay. Only one individual was responsible for synchronising the field and office databases. Auteco records new drilling data in Excel spreadsheet format synchronized with the Auteco server in Perth, Australia.</li> <li>• No adjustments were made to assay data but the procedure to determine which gold assay to enter into the database is as follows. If a pulp metallic assay was performed it was used. If a pulp metallic assay was not performed, then a gravimetric assay was used. If a</li> </ul>





Criteria	JORC Code explanation	Commentary
		<p>gravimetric assay was not performed, then the AAS assay was used. If re-assays were performed then the first analysis was used unless a QA/QC investigation proved that the first assay was suspect, in which case the second analysis was then used. For more details of historical procedures see document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (<a href="http://www.sedar.com">www.sedar.com</a>) for First Mining Inc. For all drilling not conducted by PC Gold (without the PC- hole prefix) no adjustments were made to the data.</p>
<p>Location of data points</p>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Upon completion of PC Gold drillholes collars (PC Gold prefix) were surveyed by third party contractors Delta Surveying and J.D.Barnes of Thunder Bay to with +/- 1m using an SX Blue. For all other drilling hole collars were converted from local grids or digitised from georeferenced maps. Where possible these historical surface drillholes have been re-located, surveyed and verified in the field. Drillhole locations are also recorded by the Ontario Ministry of Northern Development and Mines in freely available GIS datasets. Auteco drilling (AUDD* prefix) has been surveyed with a hand-held GPS to an accuracy of less than 3m.</li> <li>• A variety of down hole survey tools have been used on the property. All holes were surveyed at 50m intervals while drilling using an EZY Shot magnetic compass based tool supplied by the drillers. In conjunction with this, all holes were surveyed after completion with a non-magnetic down-hole instrument. A variety of tools were trialed including Maxibore tool provided by Reflex Instruments, a Devifex tool operated by TECH Directional services and an SPT North Seeking Gyro. For Auteco drilling subject to this release down hole surveys have been conducted by a REFLEX North Seeking Gyro. For further historical details of survey reproducibility and tools used please refer to document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (<a href="http://www.sedar.com">www.sedar.com</a>) for First Mining Inc. For all drilling not conducted by PC Gold (lacking the PC- prefix) surveys were conducted during drilling with hole orientation recorded by the geologist in the field. Downhole surveys of dip are recorded by azimuths away from the collar are generally lacking.</li> <li>• All location data is in UTM grid (NAD83 Zone 15) except where noted.</li> <li>• Topographic Control for PC Gold and Auteco drilling (PC- and AUDD* prefix) is from a DTM created generated from a LIDAR survey completed in 2008 and are to an accuracy of &lt;1m and verified by drill collar surveys. For all other collar data elevation was estimated from contours provided from SRTM. Topographic control for underground drillhole collars has been digitised from level plans or converted from mine grids. All surface collars have now been projected to a DTM generated from a LIDAR survey completed in 2008 and are to an accuracy of &lt;1m.</li> </ul>



Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Due to the nature of mineralisation the hole spacing is highly variable and of a progressive exploration in nature.</li> <li>Data spacing is considered sufficient to establish geological and grade continuities for mineral resource estimation at the Inferred Category</li> <li>No sample compositing was applied.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Drill hole orientations were designed to test perpendicular or sub-perpendicular to the orientation of the intersected mineralisation. Drilling was typically oriented perpendicular to the trend of geophysical anomalism and the mapped strike and dip of observed mineralisation on surface and elsewhere in the project area.</li> <li>Due to the density of drilling and the orientation of drilling perpendicular to mineralized bodies there is limited bias introduced by drillhole orientation.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>For PC Gold and Auteco drilling (PC- and AUDD* prefix), once the core samples are cut, bagged and sealed with zip ties, ten samples are put into rice bags which are sealed and secured with numbered security tags. Once samples arrive at the laboratory the security tags and corresponding samples were verified against onsite logs. Prior to shipment samples are stored in a locked building onsite. Site is always occupied, and no samples are left at the project during field breaks. For all other drillholes the measures taken to ensure sample security are unknown.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>An audit and review of sampling techniques and data was conducted as part of NI-43-101 resource estimation by Independent Consultants Micon International in 2018. Please refer to document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (<a href="http://www.sedar.com">www.sedar.com</a>) for First Mining Inc.</li> <li>An additional audit and review of sampling techniques and data was conducted by Cube Consulting as part of the Resource Estimation subject to this release and consisted of an audit of QAQC data from previous operators PC Gold Inc. (2011-2017).</li> </ul>



## Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section)

Note - Although no new results are reported in this release, this section describes the data utilised in the Mineral Resource Estimate

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <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 license to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The mineral concessions of the Pickle Crow project consist of 106 patented mining claims covering 1,712ha and 88 contiguous, unpatented claims covering approximately 14,048ha. Of the 106 patented claims 98 (the Pickle Crow Lease) are held in the name of Teck Cominco Limited (Teck) and 8 are held in the name of PC Gold. The unpatented claims are held in the name of PC gold. PC Gold has a lease on the 98 patented claims held by Teck which expires in 2067. These leasehold claims are subject to two net smelter return (NSR) royalties totalling 1.25%. The other 8 patented claims (the Crowshore Patents), plus certain unpatented claims are subject to NSR royalties ranging from 2% to 3%. A full list of tenements along with details of relevant NSR's as they pertain to individual properties is given in Auteco ASX releases dated: 28/01/2020 and 17/02/2020. An additional 600 claims were staked by Auteco subsidiary, Revel Resource (JV) Ltd. and are subject to the terms of the Earn-In-Arrangement.</li> <li>Auteco has entered into a binding term sheet agreement to acquire up to 80% of the Pickle Crow Gold Project from First Mining.</li> <li>All earn in requirements have been satisfied for the Stage 2 Earn-In, and AuTECO holds a 70% ownership stake in the Pickle Crow project.</li> <li>AuTECO may buy a further 10% interest by paying C\$3,000,000 to First Mining; and a 2% Net Smelter Return granted after the Stage 2 Earn-In. Further details are included in ASX release (17/02/2020).</li> <li>For a more complete discussion of 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 relating to the Pickle Crow Project please refer to document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (<a href="http://www.sedar.com">www.sedar.com</a>) for First Mining Inc.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The first government survey of the area was performed by William McInnes of the Geological Survey of Canada (GSC) along the Crow River from 1903 to 1905. Prospecting in the Pickle Lake area commenced in 1926. In 1927, Lois Cohen of Haileybury formed a prospecting group and early that winter sent Alex and Murdock Mosher in to stake the first claims (December 1927) on what ultimately became the Central Patricia Gold Mines property. These claims were optioned by F.M Connell and Associates in August 1928 and Central Patricia Gold Mines Limited was incorporated on 19 February, 1929. Diamond drilling commenced at Central Patricia in February 1929 and production in March 1930. The Central Patricia discovery paved the way from exploration in the region which led to the discovery and initial drilling (1929) of the first Pickle Crow orebody the No.1 Vein by Northern</li> </ul>





Criteria	JORC Code explanation	Commentary
		<p>Aerial Mineral Exploration Limited, a company set up in 1928 by J.E. (Jack) Hammell. In 1929 gold was also discovered by Albany River Miners Ltd. (Albany River) at the No.16 vein on the Albany River claims to the east of the then Pickle Crow property. Northern Aerial was acquired by Pickle Crow Gold Mines Limited (PCGM) in 1934 with Jack Hammell continuing as president. Production from the Pickle Crow mine began on 17 April, 1935. Albany river sank the Albany shaft to a depth of 190m between 1933 and 1938 and completed extensive underground development. Winoga Patricia Gold Mines was created in 1936 and drilled 73 surface diamond drill holes on a pie-shaped property located between PCGM's holdings and the Albany River Mines ground to the east. A mine shaft was subsequently sunk on the property in 1938. That same year, PCGM took over ownership of both Albany River Mines and Winoga Patricia Gold Mines through a new company called Albany River Gold Mines Ltd. It is believed that the Winoga Patricia Gold Mines shaft later became the No.3 Shaft of the Pickle Crow operation. The Cohen- MacArthur zone, located 2km to the north of the developing Pickle Crow mine, was discovered in 1933. A total of 14 surface diamond holes were drilled at Cohen-MacArthur in the winter of 1936. This property was optioned by PCGM in 1938, with the acquisition of the Cohen-MacArthur claims, PCGM became one of the largest land holders in the Pickle Lake area. The GSC completed a regional synthesis of the Pickle Crow Greenstone belt during this period as well. Ground and airborne geophysical surveys have been completed over all or parts of the Pickle Crow property at various times during its early history. A dip-needle survey completed in 1936 on the Pickle Crow property was useful in tracing out the bands of the iron formation. A detailed magnetic survey was carried out over the property by Teck (or its predecessor companies) around 1960. The property then underwent a series of ownerships until it became wholly owned by Teck in 1971. The property then sat dormant until 1973 when Pickle Crow Exploration Ltd. Reviewed the economics of reopening the mine. In 1978, a merger between Pickle Crow Explorations Ltd. And four other companies saw Teck's ownership reduced to 44.6% and a new exploration company called Highland-Crow Resources Ltd. Highland Crow went on to option the property to Galant Gold Mines Limited in 1979. Gallant performed a VLF_EM geophysical survey and drilled 47 surface diamond drill holes for 7,356m. The only known soil geochemical survey done on the Pickle Crow property was completed for Gallant in 1983. Soil values ranged from 10 to 12,000ppb with the high values attributed to mine tailings and cultural anomalies. In 1983 the property returned to Highland-Crow. Noramco Mining Corp. bought Highland-Crow in 1988. Between 1985 and 1987 Highland-Crow completed line-cutting, magnetometer and IP, geophysical surveying, geological mapping, surface trenching, diamond drilling and environmental baseline studies. Noramco drilled surface exploration holes, completed geophysical surveys and commenced dewatering of the No.1 shaft. Noramco drilled 286 surface diamond drill holes for 46,189m and 79 underground holes for 9,341m. Noramco also commissioned Historic (non-compliant) Resource Estimates. In 1994 Noramco</p>



Criteria	JORC Code explanation	Commentary
		<p>changed its name to Quest Capital. Quest assigned its interest to Pickle Crow Resources Inc. A total of 4 surface diamond drill holes for 2,287m were completed. Quest then sold its interest to Wolfden Resource Inc who entered into an option agreement with Jonpol Explorations Ltd. Who drilled 18 surface diamond holes for 2,173.5m. Wolfden also entered into a surface mining agreement with Cantera Mining Limited in 2000. Cantera commenced building a 225tpd gravity mill on site in 2002 but was placed into receivership in 2004. In 2006 Wolfden transferred Pickle Crow to Premier Gold Mines Ltd. Before the property was sold to PC Gold in 2007. PC Gold then explored the property completing 184 holes for 62,968m by 2011 and 173 holes for 35,840.4m from 2011 to 2014 before commissioning an NI-43-101 compliant Resource Estimate. For further details please refer to document 'Updated Mineral Resource Estimate for the Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada' NI-43-101 dated 15 June 2018 and available from System for Electronic Document Analysis and Retrieval (<a href="http://www.sedar.com">www.sedar.com</a>) for First Mining Inc.</p>
Geology	<ul style="list-style-type: none"> <li>• Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>• The Pickle Crow Gold Deposit is considered to be an Archean low-sulphide gold-quartz vein type deposit, also known as shear-hosted gold, Archean quartz-carbonate vein gold deposits, Archean lode gold, Archean mesothermal gold deposits or simply orogenic gold. The deposit occurs primarily within mafic volcanics and banded iron formation (BIF) units in the Pickle Crow assemblage of the Pickle Lake Greenstone belt in the Uchi Lake Subprovince of the Superior Craton of the Canadian Shield.</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>○ easting and northing of the drill hole collar</li> <li>○ elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> </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>	<ul style="list-style-type: none"> <li>• Refer to Appendix A in ASX release's 28/01/2020, 26/03/2020, 29/06/2020, 01/09/2020, 11/11/2020, 19/01/2021, 07/04/2021, 16/06/2021, 15/07/2021, 02/08/2021, 05/10/202, 02/12/2021 and 18/01/2022 for drill hole information for all reported drill holes in accordance with ASX listing rule 5.7.2.</li> </ul>



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>All drill hole intersections are reported above a lower cut-off grade of 0.5g/t Gold or 1g/t as indicated, with no upper cut off grade has been applied. A maximum of 1m internal waste was allowed. Tabulated results are presented in ASX announcements 28/01/2020, 26/03/2020, 29/06/2020, 01/09/2020, 11/11/2020, 19/01/2021, 07/04/2021, 16/06/2021, 15/07/2021, 02/08/2021, 05/10/2021, 02/12/2021 and 18/01/2022</li> <li>Metal equivalent values are not used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <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> <li>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').</li> </ul>	<ul style="list-style-type: none"> <li>All intersections reported in the body of this release are down hole.</li> <li>The majority of the drill holes are drilled as close to orthogonal to the plane of the mineralized lodes as possible. A number of drill holes have intersected the mineralisation at high angles.</li> <li>Only down hole lengths are reported.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Maps and sections are included in the body of this release as deemed appropriate by the competent person. For further maps, please refer to the previous ASX drill release dated 18/01/2022.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Any significant higher-grade zones in historical drilling quoted in this release have been reported in ASX announcements 28/01/2020, 26/03/2020 and Appendix A of this release).</li> <li>All results above 0.5g/t lower cut-off or 1g/t quoted in this release have been reported in ASX announcements 28/01/2020, 26/03/2020, 29/06/2020, 01/09/2020, 11/11/2020, 19/01/2021, 07/04/2021, 16/06/2021, 15/07/2021, 02/08/2021, 05/10/2021, 02/12/2021 and 18/01/2022)</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Appropriate plans are included in the body of this release.</li> <li>For further maps, please refer to the previous ASX drill release dated 18/01/2022.</li> </ul>



Criteria	JORC Code explanation	Commentary
Further work	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Auteco Minerals Limited is currently conducting drill testing of additional lodes as well as step out and infill drilling of existing lodes to further enhance the resources quoted in this release. More information is presented in the body of this report.</li> <li>Diagrams in the main body of this release show areas of possible resource extension on existing lodes. The company continues to identify and assess multiple other target areas within the property boundary for additional resources.</li> </ul>

### Section 3 Estimating and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database Integrity	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The CP for the Mineral Resource estimates (MRE) has not undertaken an independent data verification of the data supplied in the databases pertaining to this project. Data compilation and verification was undertaken by company employees and independent consultants to the company, and the Cube accepts that the work was diligently undertaken and does not represent a material risk to the project.</li> <li>The drilling data was supplied to Cube in a MS Excel format. This data has been relied upon as the source data for the December 2021 MRE work. Cube compiled the data for importing into a standard resource database in MS Access. Validation checks completed by the Cube included the following work: <ul style="list-style-type: none"> <li>Maximum hole depths check between sample/logging tables and the collar records</li> <li>Checking for sample overlaps</li> <li>Reporting missing assay intervals</li> <li>3D visual validation in Surpac v6.9 of coordinates of collar drill holes to topography and UG workings drilling locations</li> <li>3D visual validation of downhole survey data to identify if any inconsistencies of drill hole traces.</li> </ul> </li> <li>No material issues were identified by Cube. No significant errors due to data corruption and transcription have been found.</li> <li>Since the mid-year June 2021 MRE, an additional 32,705 metres of drilling information have been added to the Pickle Crow MRE database. Of this total, 71 holes (for 29,883 metres) has been used to inform the updated interpretation and assay data used for the December 2021 MRE. There were six holes awaiting assays by the close-off date for the updated estimate.</li> </ul>
Site Visits	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Brian Fitzpatrick (Principal Geologist at Cube Consulting) who is the Competent Person for the December 2021 MRE has not undertaken a site visit to date.</li> <li>Western Australia hard border restrictions due to the COVID-19 pandemic, have prevented the CP Mr. Brian Fitzpatrick from undertaking a site visit at a convenient date prior to the completion of the December 2021 MRE. A planned site visit has been proposed prior to undertaking the next resource update in 2022.</li> <li>For the December 2021 MRE, the CP Mr. Fitzpatrick has relied upon information provided by Auteco Geologists, and data room documentation provided by Auteco.</li> <li>Despite border restrictions enforced by Western Australia, Mr. Darren Cooke (COO at AuTECO Minerals)</li> </ul>





Criteria	JORC Code explanation	Commentary
		<p>conducted a site visit during September and October of 2021.</p> <ul style="list-style-type: none"> <li>All aspects of the operation were reviewed by Mr. Cooke with no significant material issues relating to data collection for the MRE identified.</li> </ul>
Geological Interpretation	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Mineralisation 3DM interpretations were provided to Cube by Auteco for use in the December 2021 MRE.</li> <li>The confidence in the geological interpretation is high as a result of the current knowledge within the limits of the historical Pickle Crow UG workings (1935-1966) and diamond drilling from surface and UG drilling extending out from the workings. Interpreted extensions of mineralised quartz veins have been established through production history and available mapping and UG sampling records. This information has been used to guide and control the mineralisation interpretation and estimation factors. Mineralisation trends are open along strike and down plunge, so continuous review and understanding of lithological and structural controls are being undertaken to further increase the degree of precision and accuracy of the geological interpretation beyond the limits of the current information.</li> <li>The data used for the December 2021 MRE was comprised of surface and UG diamond drill holes and underground (UG) chip samples. Surface trench sampling results were not used in the December 2021 MRE. UG drilling and sampling locations have not been verified and UG chip sampling intervals were estimated over the true width of the mineralised quartz vein structures. Most of the chip sampling data is in stope out areas and is not material to the depleted Resource Estimate.</li> <li>Previous interpretations have separated vein structures and domains into thin mineralised envelopes or interpreted variable thickness waste or dilution haloes around the in-situ mineralisation. Vein thicknesses were determined from the 3D wireframe interpretations and interpolating these thicknesses into the block model. Blocks with interpolated thicknesses less than 1 m were then diluted to 1 m of thickness and reported above the cut-off grade as diluted tonnes and grade. The effect of this method resulted in the reporting of a diluted grade estimate taking into account a minimum mining width of 1 m.</li> <li>The current geological interpretation is based on observations from logged diamond drill core, and the visual mapping in outcrop and underground of vein quartz, BIF hosted, and shear hosted zones within the host sequence.             <ul style="list-style-type: none"> <li>The most prominent and continuous style of mineralisation is the auriferous quartz vein hosted mineralisation in several steeply dipping NE plunging zones – mined over the life of the Pickle Crow UG as the #1, 2, 5, 6, 7, 8 and 9 Veins.</li> <li>The second style of mineralisation at Pickle Crow is the gold-bearing BIF hosted type adjacent to the #1 and #5 vein mineralisation. Auriferous mineralisation comprises stringers and discontinuous lenses of quartz within sulphide replacement iron formation. Mineralisation is generally broader in thickness (3m-10m) but has been logged and mapped as both contorted and tight to isoclinal folded following the trend of the quartz vein hosted mineralisation.</li> <li>The shear zone-hosted type of mineralisation</li> </ul> </li> </ul>



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		<p>has been recorded in the Albany Shaft area. The mineralisation is described as broad, highly complex zones (both lithologically and structurally) of shearing with discontinuous quartz veining, and sulphidic BIF hosted zones.</p> <ul style="list-style-type: none"> <li>○ For the December 2021 MRE, interpretations for 34 domains were updated, and there were five new domains added to the Vein model inventory.</li> <li>• Grade distribution plots were created in Surpac to assist with assessing grade continuity along strike, down dip, and to assess if any down plunge component was apparent. Most major mineralised vein structures appear to plunge to the NE and currently open at depth. There are no definitive interpreted major fault structures and dyke intrusives modelled in 3D available for the December 2021 MRE. but available surface geology plans show several porphyry sill/dyke intrusives and minor NW fault structures. Tight to isoclinal folding within the Pickle Crow deposit area has been well recorded from fold structures clearly visible in the BIF units. Intrusives, fault structures and complex folding are likely to have influence over grade continuity at a local scale.</li> <li>• For the December 2021 MRE update, the glacial overburden surface was updated across the resource area where geologically logged within the surface drill holes. The thickness of the overburden varies from 0m thick (where there was ground disturbed by old surface mining activities, to 20m thick within an apparent trough along the footwall of the main mineralisation trend. As all of the overburden is waste material, there has been a minor depletion of previously stated mineralisation volumes.</li> </ul>
Dimensions	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• The Mineral Resource area has overall dimensions of 3,800m strike (in a NE direction), 800m width and has been interpreted to extend to 1,800m below surface. Multiple lode systems exist within this area, predominantly within and in close proximity to the historical Shaft #1 and Shaft #3 workings.</li> </ul>
Estimation and Modelling Techniques	<ul style="list-style-type: none"> <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 mine production records and whether the Mineral Resource Estimate takes appropriate account of such data.</li> <li>• The assumptions made regarding recovery of by-products.</li> <li>• Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li> <li>• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>• Any assumptions behind modelling of selective mining units.</li> </ul>	<ul style="list-style-type: none"> <li>• The estimate has been produced by 3D modelling of the lode systems and block model grade estimation using a combination of 2D estimation modelling approach and 3D dynamic interpolation (DK), both using Ordinary Kriging (OK) or Inverse Distance to the power of 2 (ID<sup>2</sup>):             <ul style="list-style-type: none"> <li>○ The 2D estimation approach using OK was deemed appropriate for the very narrow, linear and continuous zones hosted by quartz veins. Interval composites were generated for the mineralised lode, which were then weighted by their respective widths to calculate an <i>accumulation variable</i>. The accumulation variable for gold was then used for variogram analysis and 2D interpolation of gold grades. The estimated 2D block values were then exported back into 3D space.</li> <li>○ Several quartz vein hosted domains show ribbon-like structures and although the overall dip and dip direction of most of the lodes are consistent, there are enough changes in geometry to require locally varying search ellipse and variogram directions. The dynamic anisotropy search feature in Surpac was used in which the search neighbourhood ellipse dip and dip direction are defined separately for each block approximating the orientation of each of the mineralised zones</li> </ul> </li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• Any assumptions about correlation between variables.</li> <li>• Description of how the geological interpretation was used to control the Resource Estimates.</li> <li>• Discussion of basis for using or not using grade cutting or capping.</li> <li>• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul style="list-style-type: none"> <li>○ The influence of extreme grade values was reduced by grade capping where required. The grade capping levels were determined using a combination of grade capping analysis tools (grade histograms, log probability plots and CVs). Grade capping was reviewed and applied on a domain basis.</li> <li>○ The primary estimation domains are based on the geological wireframing of quartz veins, alteration zones, and porphyry or BIF hosted mineralisation within the Pickle Crow Shear Zone and additional quartz vein and shear zone domains.</li> <li>○ Drill hole sample data was flagged using domain codes generated from 3D mineralisation domains. Sample data was composited over the full downhole interval. There were consequently no residuals. Intervals with no assays were assigned background grades for the compositing routine as these un-assayed intervals in the drill holes were assumed to be waste.</li> <li>○ <i>Interpolation and Search Parameters</i> - For mineralised domains estimated using 2D OK method, variogram ranges and search distances were defined in a rotated horizontal plane. For the 3D DK method, variogram modelling was conducted to provide nugget, sill and range for 3 directions. Variogram maps were initially analysed in plan, east-west and north-south section to confirm continuity trends and to refine parameters for experimental variogram calculation. Interpolation parameters were set to a minimum number of 4 composites and a maximum number of 16 composites for the estimate. Maximum search ellipse of 200 metres was used.</li> <li>○ The maximum distance of extrapolation from data points was half the drill spacing.</li> <li>○ Computer software used for the modelling and block construction was Surpac v.2021. Snowden Supervisor v.8.13 was used to prepare variogram and search parameters for specific domains.</li> <li>• Check Estimates/ previous estimates/mine production:             <ul style="list-style-type: none"> <li>○ For the December 2021 MRE, ID2 estimation was used as a check estimate against the OK estimation, with no significant variations in global estimate results.</li> <li>○ A previous MRE was completed by Cube (August 2020) using the same methodology as reported for December 2021.</li> <li>○ A previous MRE was reported by Micon (2018) with an effective date of 31 August 2016, for First Mining Gold, the owner of the Pickle Crow Deposit at that time. The Resource Estimate was carried out using either OK method or inverse distance squared estimation (ID2) method (for estimation domains where data was limited), based on interpreted narrow high-grade zones. Overall, the lithological controls and mineralisation trends were similar to the 2020 interpretation. The main differences included: the application of a minimum width of 1m applied to the domains for the 2016 model; 2D and DK estimation method applied for the 2021 model; Minor differences in grade estimation and search</li> </ul> </li> </ul>



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		<p>parameters. Previous work by other consultants in 2011 and 2016 involving data compilation and verification/validation of the historical UG drilling and sampling, along with the compilation of mapping, UG development and stope outlines, and early surface drilling provided support for the completion of the 2021 model and estimation work.</p> <ul style="list-style-type: none"> <li>○ Pickle Crow Gold Mines (PCGM) acquired the project in 1934 and commercial production at the mine began in 1935. The Pickle Crow mine operated until 1966 during which time it produced 1,446,214 troy ounces of gold and 168,757 troy ounces of silver from 3,070,475 tons of ore milled (at an average grade of 0.47 oz/ton or 16.14 g/t).</li> <li>• No by-product recoveries were considered</li> <li>• Estimation of deleterious elements was not completed for the MRE. There has been insufficient multi-element assaying completed in order to ascertain any effects of potential deleterious elements. Arsenic is known to be associated with some gold mineralisation but was not estimated for this model.</li> <li>• The parent block size used is 40mE, 5mN and 40m RL and sub-blocked to 2.5mEN x 0.625mN x 2.5mRL. The data spacing has relied on a combination of recent and historic surface diamond drilling, UG drilling and UG chip samples with no particular common sample spacing.</li> <li>• No assumptions of selective mining units were made.</li> <li>• No correlation analysis between gold and other elements has been assessed for the current model. Only gold and silver assays were provided for the December 2021 MRE.</li> <li>• The mineralised domains acted as a hard boundary to control the December 2021 MRE. The domain interpretations were based on historical UG mining knowledge of the steeply dipping quartz veining known to host gold mineralisation from drill logging and descriptions of mapping and sampling.</li> <li>• Gold grade distributions within the estimation domains were assessed to determine if high grade cuts or distance limiting should be applied on a domain-by-domain basis.</li> <li>• Block model validation was conducted by the following means: <ul style="list-style-type: none"> <li>○ Visual inspection of block model estimation in relation to raw drill data on a section-by-section basis.</li> <li>○ Volumetric comparison of the wireframe/solid volume to that of the block model volume for each domain.</li> <li>○ A global statistical comparison of input and block grades, and local composite grade (by northing and RL) relationship plots (swath plots), to the block model estimated grade for each domain.</li> <li>○ Comparison the cut grade drill hole composites with the block model grades for each lode domain in 3D.</li> </ul> </li> <li>• No selective UG mining records assigned to stopes or by Vein Number identification are currently available and therefor no reconciliation analysis has been conducted.</li> </ul>





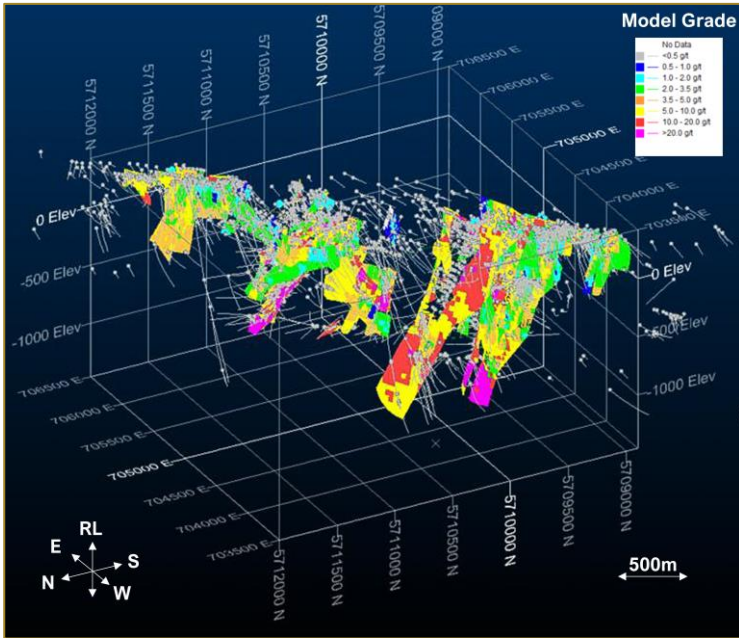
Criteria	JORC Code explanation	Commentary
Moisture	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>The tonnages are estimated on a dry basis. Moisture was not considered in the density assignment.</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>All resources are reported at either a 2.0 g/t Au or 3.5 g/t gold lower cut-off which is deemed acceptable based on approximate industry costings associated with the likely mining methods:               <ul style="list-style-type: none"> <li>Open Pit mining methods (BIF hosted mineralisation and Albany Zone - alteration style mineralisation).</li> <li>Narrow vein underground mining (Quartz Vein hosted mineralisation).</li> </ul> </li> </ul>
Mining factors or assumptions	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>No rigorous application has been made of minimum mining width, internal or external dilution for interpreted mineralisation domains used for the December 2021 MRE.</li> <li>Underground (UG) mining has previously been assumed to be the main mining method based on historical mining activity at Pickle Crow. No assumptions on UG mining methods have been made.</li> <li>As most of the main mineralisation zones have been projected to the surface, preliminary open pit optimisation studies are being undertaken by Cube in February 2022.</li> </ul> <p>3DM modelling and block construction of a mineralised waste halo have been created with aim of preparing a suitable model for open pit mine design and pit optimisation, with a minimum mining width of 2m.</p>
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No metallurgical factors have been considered as part of the December 2021 MRE</li> <li>Metallurgical test work was completed by previous operators on the high-grade vein mineralisation at Pickle Crow and are summarised as follows:               <ul style="list-style-type: none"> <li>Total gold extractions to a maximum exceeding 99% through a combination of gravity and 48-hour cyanide leach bottle rolls</li> <li>Gravity recoveries of up to 92.4% of total gold recovered by the Knelson Concentrator prior to cyanide leaching.</li> </ul> </li> <li>These results are in line with the historical performance of the Pickle Crow Gold mine which operated between 1935 and 1966 with recoveries averaging slightly over 98% recovered through a combination of gravity and cyanidation.</li> </ul>
Environmental factors or assumptions	<ul style="list-style-type: none"> <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</li> </ul>	<ul style="list-style-type: none"> <li>No environmental factors have been considered as part of the December 2021 MRE. No assumptions have been made regarding possible waste and process residue disposal options or the potential environmental impacts of the mining and processing operation. However, the project is the site of historic mining activity, located within an existing mineral field</li> </ul>



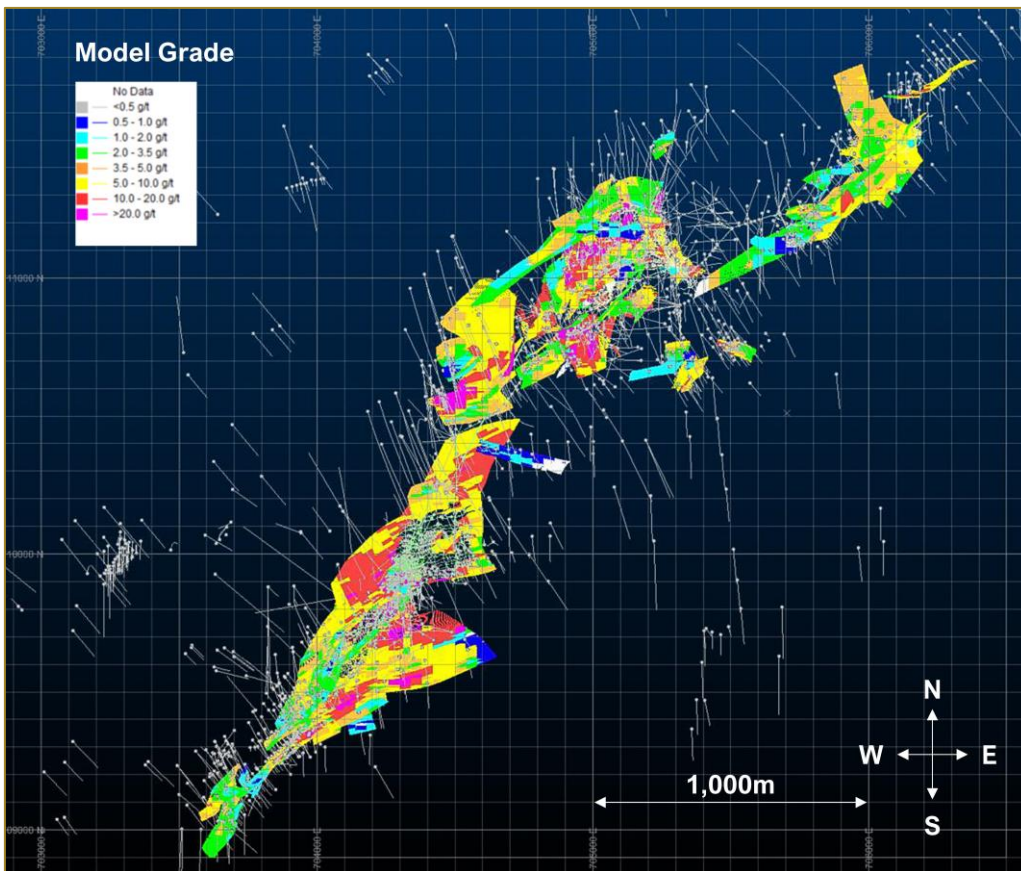
Criteria	JORC Code explanation	Commentary
	<p>well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</p>	
Bulk density	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Bulk density (BD) assignment was determined by laboratory BD sampling.</li> <li>• PC Gold completed BD measurements on 2,602 samples of mineralised and unmineralised diamond drill core and select grab samples from old stockpiles onsite from the Pickle Crow property (Micon, 2018). The majority of the samples were measured by Accurassay of Thunder Bay, Ontario using the water displacement method. BD was assigned within the block model attribute 'density' according to rock types: Vein Quartz = 2.7; BIF Unit = 3.21; Waste Rock =2.83.</li> <li>• There were no considerations required for BD based on weathering profiles or porosity, as the mineralised quartz veins domains interpreted for this Resource Estimate lie entirely within the primary or fresh sulphide zone.</li> </ul>
Classification	<ul style="list-style-type: none"> <li>• The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>• Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>• Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul style="list-style-type: none"> <li>• The Mineral Resource has been entirely classified as Inferred. The Pickle Crow Deposit has been subject to mining since 1935 and historical workings demonstrate grade and geological continuity. When assessing the combination of current drilling, historic drilling and underground chip samples used in the December 2021 MRE, no particular common sample grid exists. While data quality control is lacking for the majority of historic UG drilling and sampling used, a moderate amount of well controlled and industry standard recent drilling and re-sampling provides some validation of the information to support the estimation and classification of a Mineral Resource.</li> <li>• The December 2021 MRE results appropriately reflects the Competent Person's view of the deposit.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>• The results of any audits or reviews of Mineral Resource Estimates.</li> </ul>	<ul style="list-style-type: none"> <li>• Internal peer review has been completed by Cube which verified the technical inputs, methodology, parameters and results of the estimate.</li> </ul>
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <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. Documentation should include assumptions made and the procedures used.</li> <li>• These statements of relative accuracy</li> </ul>	<ul style="list-style-type: none"> <li>• It is the CP's opinion that reported Inferred Resources are appropriate for the level of accuracy and confidence in the December 2021 MRE for Pickle Crow. This is in part based on the accuracy and precision of the assay determinations in the UG historical data which are unknown and only partially validated. There also exists potential errors in relation to the chip sample locations and the accuracy of the digitised UG workings and UG hole collar locations. Despite these inaccuracies, the grade and tonnage discrepancies are minimal as much of these areas have been stoped out, and the depleted material margin of error is within reasonable limits for Inferred Resource category.</li> <li>• Modelling for the December 2021 MRE has provided an understanding of the global grade distribution but not the local grade distribution. The Mineral Resources constitute a global Resource Estimate.</li> <li>• Relative accuracy and confidence of the Inferred Resource Estimate is supported by a successful history of commercial production at the Pickle Crow Gold Mine which produced 1.5 Million oz @ 16g/t Gold between</li> </ul>



Criteria	JORC Code explanation	Commentary
	and confidence of the estimate should be compared with production data, where available.	1935 and 1966.



**Figure 5:** Isometric view of the Resource model showing drill data density. The model is coloured by gold grade.



**Figure 6:** Plan view of the Resource model and drill hole information used to inform the estimate. The model is coloured by gold grade.

