**Explanatory Notes: Beutong Copper-Gold-Silver-Molybdenum 2019 Resource Estimate procedures, observations and outcomes; presented according to the JORC TABLE 1 checklist of the JORC Code (2012 Edition). Compiled by Hackman and Associates Pty. Ltd., January 2019.**

This technical explanation of the Beutong Cu-Au-Ag-Mo 2019 Resource Estimate follows the format of Table 1 in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition). It outlines activities undertaken by Hackman & Associates Pty Ltd ("H&A") in generating the estimate and presents outcomes and observations material to the understanding of the mineralisation and risks associated with the resource estimate.

The Beutong 2019 Resource Estimate deals with the copper-gold-silver-molybdenum mineralization for the Beutong prospect located 60 kilometres north of Suka Makmue on Aceh's west coast (Figure 1).

The Beutong project area is subject to a 10,000 hectare IUP Production license held 100% by PT Emas Mineral Murni (EMM, license no. 66 /1/IUP/PMA/2017 "the Beutong IUP"). EMM has two shareholders. It is 80% owned by the Singaporean domiciled Beutong Resources Pte. Ltd. (BRPL) and 20% by the Indonesian domiciled PT Media Mining Resources (MMR). BRPL is in turn 100% owned by Tigers Copper Singapore No 1 Pte. Ltd. (TCS) which in turn is 100% owned by Asiamet Resources Limited (ARS).

The Beutong IUP is currently within its second year of a 20 year initial tenure period which, if kept in good standing, may be extended for a further 2 x 10 years, taking the ultimate expiry date to the 18th December 2057.

**Figure 1: Beutong Prospect Location Map (base maps from public open source images)**

The 2019 Beutong Cu-Au-Ag-Mo Resource Estimate was undertaken in accordance with the guidelines set out in the CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices Guidelines" (CIM Guidelines) and the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012). The Beutong Resource was, in 2014 originally reported under the auspices of the Canadian National Instrument 43-101 (Standards of Disclosure for Mineral Projects (NI 43-101)) by Kalimantan Gold Corporation Limited and Tigers Realm Metals Pty. Ltd. and this document is available on the ARS website and in the Canadian Public Securities Documents and Information Database (SEDAR). These explanatory notes follow the reporting guidelines set out in the JORC TABLE 1 checklist of the JORC Code (2012) and are filed on the ARS website. EMM has compiled this document to satisfy disclosure requirements for the public reporting of resources according to the JORC Code (2012 Edition).

This resource estimate is based on the EMM and historical geological databases as at 31st December 2018 and the geological, clay and oxidation interpretations by Steve Hughes of PT Tigers Realm Consultants Indonesia (an associated company to ARS). The data analysis, triangulation, domaining, block modelling and grade interpolation was undertaken by Duncan Hackman of Hackman and Associates Pty. Ltd. and the geostatistical analysis and kriging strategy was undertaken by Trent Strickland of Quantitative Group Pty. Ltd.

The January 2019 Resource Estimate is an update of the November 2014 Resource Estimate for the porphyry and skarn mineralisation on the project and includes additional data and information from seven holes drilled in 2018 into the porphyry mineralisation. The skarn mineralisation estimate at Beutong is unchanged from the November 2014 Resource Estimate. The 2019 resource model covers the 1500m strike extent of the mineralisation at Beutong and the 200 to 500m width the porphyry system. Porphyry mineralisation is open to the east, west and at depth. The 600m by 50m skarn body to the north of the porphyry is included in the resource estimate and is open to the east, west and at depth.

The January 2019 Resource Estimate is materially the same as the November 2014 Resource Estimate.

The 2019 resource model is underpinned by data from 113 Diamond Drill holes (33,325m) containing 16,493 logged and assayed, mainly 2m and 3m intervals. Sample data was composited to 3m intervals and flagged by the domains defined in the geological interpretation. Three passes of Ordinary Kriging were employed to interpolate copper, gold, silver, molybdenum, and arsenic grades within domains into a sub-blocked model (arsenic not reported with resource figures). High grade cuts and restrictions were applied. The resource estimate has been classified based on data density, data quality, confidence in the geological interpretation and confidence in the copper grade interpolation.

The Beutong 2019 Resource Estimate is reported at 0.3% and 0.5% Copper cuts in line with the reporting cuts of other porphyry projects in the Southeast Asia Region (e.g. Batu Hijau, Indonesia and Tampakan, Philippines).

| **Beutong 2019 Resource Estimate - Report at 0.3% Cu Lower Cut** ***[EMM 100%: ARS 80% and MMR 20%]*** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Classification (JORC 2012)** | **Mineralisation** | **Tonnes (Mt)** | **Grade** | | | | **Metal** | | | |
| | | | **Cu (%)** | **Au (ppm)** | **Ag (ppm)** | **Mo (ppm)** | **Cu (Kt)** | **Au (kOz)** | **Ag (kOz)** | **Mo (Kt)** |
| Measured | East Porphyry | 34 | 0.67 | 0.13 | 1.68 | 90 | 226 | 142 | 1830 | 3 |
| Indicated | East Porphyry | 50 | 0.57 | 0.1 | 1.56 | 116 | 281 | 159 | 2485 | 6 |
| | Skarn | 7 | 0.71 | 0.28 | 5.89 | 8 | 46 | 59 | 1244 | 0.1 |
| Inferred | East Porphyry | 83 | 0.54 | 0.13 | 2.32 | 147 | 450 | 347 | 6191 | 12 |
| | West Porphyry | 321 | 0.43 | 0.13 | 0.78 | 121 | 1366 | 1340 | 8042 | 39 |
| | Outer East Porphyry | 6 | 0.36 | 0.06 | 1.12 | 157 | 20 | 11 | 198 | 1 |
| | Outer West Porphyry | 5 | 0.36 | 0.1 | 0.84 | 54 | 18 | 16 | 133 | 0.3 |
| | Skarn | 5 | 0.67 | 0.24 | 5.1 | 10 | 32 | 37 | 794 | 0.0 |
| Measured | Total | 34 | 0.67 | 0.13 | 1.68 | 90 | 226 | 142 | 1830 | 3 |
| Indicated | Total | 56 | 0.58 | 0.12 | 2.07 | 104 | 327 | 218 | 3729 | 6 |
| Inferred | Total | 419 | 0.45 | 0.13 | 1.14 | 125 | 1886 | 1751 | 15358 | 52 |
| | **Total** | **509** | **0.48** | **0.13** | **1.28** | **120** | **2439** | **2111** | **20917** | **61** |

| Beutong 2019 Resource Estimate - Report at 0.5% Cu Lower Cut *[EMM 100%: ARS 80% and MMR 20%]* | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Classification** | **Mineralisation** | **Tonnes** | **Grade** | | | | **Metal** | | | | |
| **(JORC 2012)** | | **(Mt)** | **Cu (%)** | **Au (ppm)** | **Ag (ppm)** | **Mo (ppm)** | **Cu (Kt)** | **Au (kOz)** | **Ag (kOz)** | **Mo (Kt)** |
| Measured | East Porphyry | 28 | 0.72 | 0.13 | 1.74 | 92 | 200 | 116 | 1551 | 3 |
| Indicated | East Porphyry | 33 | 0.64 | 0.1 | 1.66 | 119 | 210 | 105 | 1750 | 4 |
| | Skarn | 4 | 0.84 | 0.34 | 6.51 | 7 | 38 | 49 | 936 | 0.03 |
| Inferred | East Porphyry | 46 | 0.63 | 0.14 | 2.49 | 164 | 292 | 208 | 3692 | 8 |
| | West Porphyry | 45 | 0.57 | 0.11 | 0.88 | 142 | 259 | 161 | 1284 | 6 |
| | Outer East Porphyry | 0.2 | 0.55 | 0.09 | 1.22 | 226 | 1 | 1 | 8 | 0.04 |
| | Outer West Porphyry | 0.2 | 0.57 | 0.08 | 1.84 | 51 | 1 | 0.6 | 14 | 0.012 |
| | Skarn | 3 | 0.80 | 0.27 | 5.68 | 8 | 27 | 30 | 623 | 0.03 |
| Measured | Total | 28 | 0.72 | 0.13 | 1.74 | 92 | 200 | 116 | 1551 | 3 |
| Indicated | Total | 37 | 0.66 | 0.13 | 2.24 | 105 | 248 | 154 | 2686 | 4 |
| Inferred | Total | 95 | 0.61 | 0.13 | 1.83 | 148 | 580 | 399 | 5621 | 14 |
| | **Total** | **160** | **0.64** | **0.13** | **1.91** | **128** | **1028** | **669** | **9858** | **21** |

*Mineral Resources for the Beutong mineralization have been estimated in conformity with the CIM and JORC (2012) guidelines. In the opinion of Duncan Hackman, the block model resource estimate and resource classification reported herein are a reasonable representation of the copper-gold-silver-molybdenum mineral resources found in the defined area of the Beutong mineralization. Mineral Resources are not Ore Reserves and do not have demonstrated economic viability. The resources reported at 0.3%Cu cut represent the base case estimate as they present the extent of the mineralisation that has reasonable prospect of economic extraction. There is no certainty that all or any part of the Mineral Resource will be converted into Ore Reserves. Computational discrepancies in the table are the result of rounding.*

**Key points relating to the Beutong 2019 Copper-Gold-Silver-Molybdenum Resource Estimate**

- The resource estimate applies to outcropping porphyry and skarn hosted copper-gold-silver-molybdenum mineralisation centred on 229900E, 495400N (WGS84, UTM Zone 47N). The mineralisation has been delineated as three bodies over a strike length of 1500m (towards 080$^{O}$), across a total width of 700m and to a depth of 600m below surface. The deepest drilling intercepts the porphyry mineralisation at 800m below surface, indicating that the mineralisation persists below the current depth of delineation drilling. Mineralisation is open to the east, west and at depth.
- Porphyry style copper, gold, silver and molybdenum mineralisation is hosted in a fractured and brecciated diorite known locally as the Beutong Porphyry. This porphyry forms the majority of the 3km by 1.5km Beutong Intrusive Complex (Figure 2 and Figure 3). Mineralisation is cut by dioritic and dacitic post mineralisation dykes and a persistent un-mineralised footwall breccia complex that expands across to the hangingwall location in the eastern-most drillhole. Well-developed porphyry mineralisation is located in the eastern half of the deposit. Mineralisation is less-well developed and patchy, both peripheral to the eastern porphyry core and in the western half of the deposit. Skarn mineralisation has been delineated to the north of the porphyry mineralisation at the steeply dipping contact between the Beutong Intrusive Complex and a thick limestone unit.
- 167 diamond drillholes have been drilled at Beutong. The deposit is delineated by 113 of these holes, totalling 33,325m. This drilling was undertaken in four programmes by four separate companies; Highlands Gold Indonesia (HG), Freeport McMoRan Copper & Gold Inc. (FPT), Tigers Copper Singapore No 1 Pte. Ltd. and Emas Mineral Murni (EMM). The eastern porphyry and skarn bodies are mostly delineated by steeply angled holes clustered to form fan-like configurations drilled from multi-use pads along 100m spaced

section lines. The western porphyry is sparsely drilled, with the majority of the mineralisation loosely defined by holes drilled radially from six drill pads. There is one set of twin holes within the high grade volume of the eastern porphyry which shows good continuity of grade at close ranges.

- Sampling of mineralisation is at nominal 2m and 3m lengths. Copper and multi-element assays from 16,493 half-PQ3, half-HQ3 and half-NQ3 diamond core samples populate the Beutong Resource Database. Copper grades are higher for the TCS and EMM samples than the HG and FPT samples, partly due to TCS and EMM targeting the core of the mineralisation and partly due to more appropriate drilling and sampling protocols designed to preserve the integrity of friable mineralised core. Appropriate laboratory sample reduction and analytical protocols were utilised and the analytical quality control programme results confirm that the copper, gold and molybdenum assay values are of acceptable quality to underpin Measured Resources at Beutong (following JORC Guidelines). The lower detection limits for both the HG silver analyses (1ppm) and majority of FPT silver analyses (5ppm) are inappropriately high for the Beutong mineralisation and accordingly, the HG silver assays and the FPT 3 acid digest volumetric determination silver assays were excluded when generating the resource estimate.
- Copper grade is estimated by Ordinary Kriging interpolation methods. Interpolation is guided and constrained by solid TIN (triangulated) boundaries. 6977 copper, gold and molybdenum and 4493 silver, three metre composites inform the grade interpolation within domains. Parent cell estimates (25mE x 25mN x 10mRL) were written to a sub-blocked model. High grade values were restricted from informing block grades at greater than 50m (E and N) and 30m (RL) distance from sample locations. 122 copper composites are affected by this treatment. Thirty-four gold values (two domains) and twenty molybdenum values (one domain) were cut in the estimate. Tonnage factors of 2.37g/cc (low clay altered material) and 2.25g/cc (moderate clay altered material) were utilised, based on 678 dry bulk density measurements taken from mineralised drill core intercepts.
- The Beutong Mineral Resource Estimate was classified utilising the definitions of Resources as described in the JORC Code (2012 Edition). The estimate is assigned a Measured Mineral Resource classification where there is high confidence in the 2019 geological interpretation (geological continuity), where drilling is concentrated and comprises of mostly TCS and EMM holes and where the copper grade is estimated from the more locally focused, first interpolation pass. An Indicated Mineral Resource classification is assigned to a volume surrounding the Measured Resource classification in the porphyry where confidence in the geological continuity is high, however the confidence in the grade interpolation is reduced due to the lower drilling density in this volume (wrt Measured Resources). An Indicated Mineral Resource classification has been assigned to part of the skarn mineralisation based on drill density and confidence in the grade interpolation. Volumes of the resource that do not meet the Measured and Indicated criteria are assigned an Inferred Mineral Resource classification. All resources within the surface oxide zone are assigned an Inferred Mineral Resource classification. Drilling or data density and geological and grade continuity are the key risk inputs in determining the resource classification.

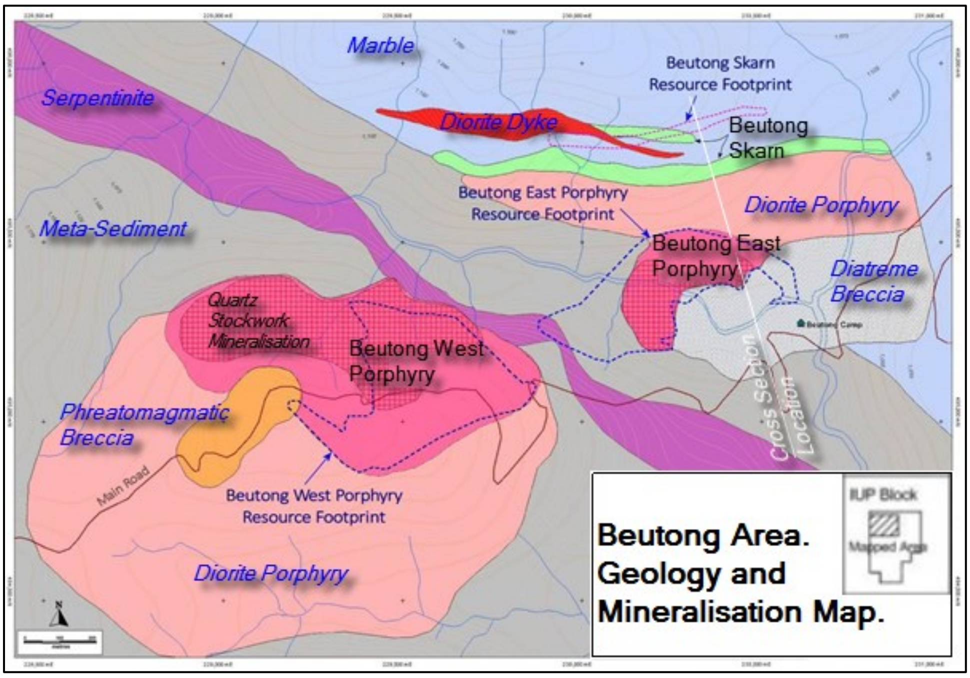


**Figure 2:** **Geological interpretation map of the Beutong Deposit, showing mapped BEP, BWP and Beutong Skarn mineralisation and the 850m RL resource footprint extrapolated to surface.**

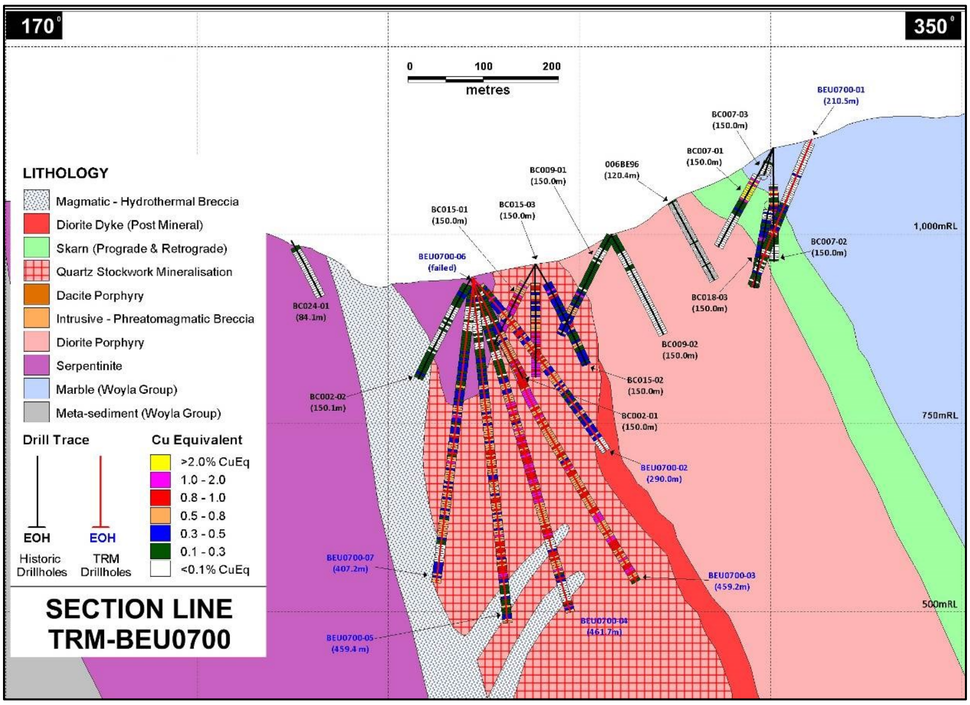


**Figure 3:** **Cross section (BEU0700) through the BEP, showing strong copper-gold-molybdenum mineralization from surface. Note the injection breccias at depth, branching off the magmatic hydrothermal breccia.** ***[CuEq = Cu% + (Mo ppm/10000 * 3.8883) + (Au g/t * 0.5089) + (Ag g/t * 0.0063)]*****.**

Contributing experts:

| Expert Person/Company | Area of Expertise and Contribution of Expert |
|---|---|
| Duncan Hackman *B.App.Sc. MSc. MAIG.*<br><br>Hackman and Associates Pty. Ltd. | *Exploration and Resource Geologist – 33yrs experience*.<br><br>Data validation and quality analysis, resource domaining, block modelling, grade interpolation, resource classification. |
| Stephen Hughes *BSc.(Hons)*,<br><br>PT Tigers Realm Consultants Indonesia. | *Copper Gold Exploration Geologist – 20yrs experience.*<br><br>Geological interpretation and data validation. |
| Trent Strickland *BSc. (Hons) AusIMM.*<br><br>Quantitative Group Pty. Ltd. | *Exploration, Mining and Resource Geologist – 14yrs experience.*<br><br>Kriging neighbourhood analysis and grade interpolation design. |

**Compliance with the JORC code assessment criteria and Competent Persons Consent**

This Mineral Resource has been compiled in accordance with the guidelines defined in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition).

Duncan Hackman of Hackman & Associates (H&A) is a member of the Australian Institute of Geoscientists and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition). Neither Duncan Hackman nor H&A have any material present or contingent interest in the outcomes of the Beutong Cu-Au-Ag-Mo Project Resource Estimate, nor do they have any pecuniary or other interest that could be reasonably regarded as being capable of affecting their independence. H&A's fee for completing this Resource Estimate is based on its normal professional daily rates plus reimbursement of incidental expenses. The payment of the professional fee is not contingent upon the outcome of the estimate.

The opinions and recommendations provided by Duncan Hackman are in response to requests of technical basis by PT Emas Mineral Murni and based on data and information provided by PT Emas Mineral Murni or their agents. Duncan Hackman and H&A therefore accept no liability for commercial decisions or actions resulting from any opinions or recommendations offered within.

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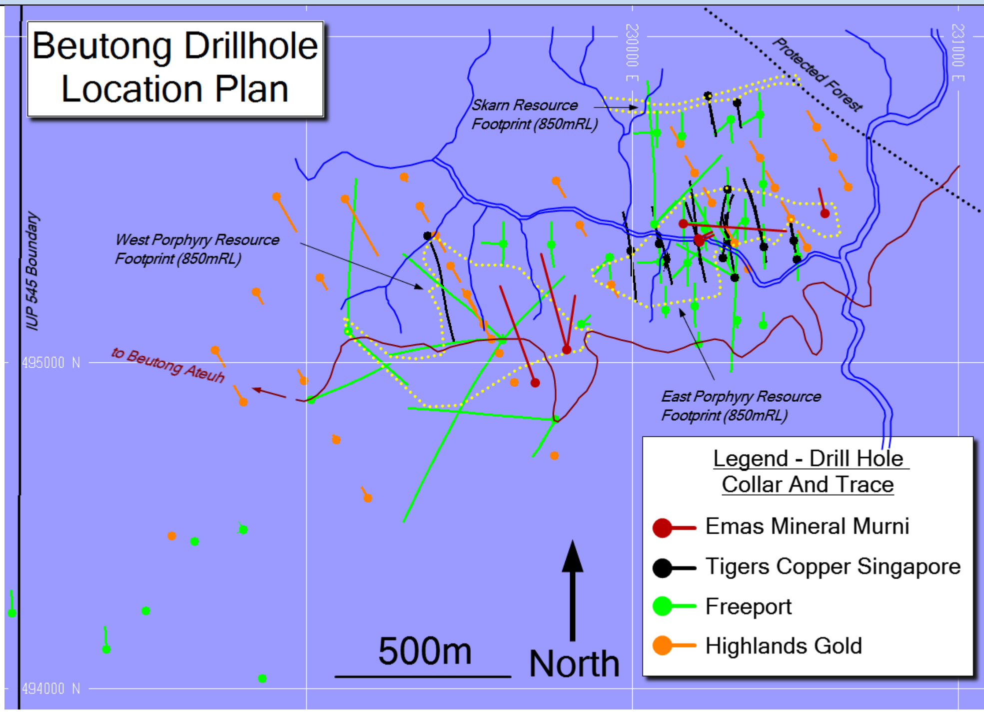
**JORC TABLE 1 checklist of the JORC Code (2012 Edition)**

This document covering the technical reporting of procedures, observations and outcomes relating to the generation of the Beutong Cu-Au-Ag-Mo 2019 Resource Estimate follows the guidelines defined in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition). H&A presents these procedures, observations and outcomes as outlined in the JORC TABLE 1 checklist of the JORC Code (2012 Edition).

A list of abbreviations specific to the Beutong Project Resource Estimate Explanatory Notes is included following the JORC TABLE 1 checklist report.

**Sampling Techniques and Data**

| Criteria | Explanation |
|---|---|
| Sampling techniques | **Drilling details**<br><br>167 diamond drillholes have been drilled in and around the Beutong deposit of which 113 (33,325m) have intercepted significant mineralisation and form the basis of the Beutong 2019 resource estimate.<br><br>Four drilling programs were undertaken in the evaluation the Beutong Project. These are:<br><br>1. 1996-97: PT Miwah Tambang Emas and Highlands Gold Indonesia (HG); a man-portable, NQ drilling program of 35 holes totalling 4,122m (hole nomenclature format: *BE*). Sample lengths nominally 2m.<br>2. 2007-08: Freeport McMoRan Copper & Gold Inc. (FPT) and PT Emas Mineral Murni (EMM); a shallow and deep PQ, HQ and NQ triple-tube diamond drilling programme of 91 holes totalling 23,044m (hole nomenclature format: BC*). Sample lengths nominally 3m.<br>3. 2011-14: Tigers Copper Singapore No 1 Pte. Ltd. (TCS) and EMM; a delineation PQ, HQ and NQ triple-tube diamond drilling programme of 32 holes totalling 11,745m. Two deep diamond holes totalling 2,517m into the Beutong East Porphyry (BEP) and Beutong West Porphyry (BWP) to test for depth extensions of mineralisation (hole nomenclature format: BEU*). Sample lengths nominally 3m.<br>4. 2018: PT Emas Mineral Murni (EMM); a PQ, HQ and NQ triple-tube diamond drilling programme of 7 holes totalling 3,528m. Three holes targeted Measured Resources in the BEP mineralisation (estimated in 2014) to obtain metallurgical testwork samples. Three holes were targeted at the BWP Inferred Resources (estimated in 2014) and one on the eastern extent of the BEP. Hole nomenclature format for these holes: BEU*. Sample lengths nominally 2m.<br><br>A drillhole collar location and trace plan can be seen in the following figure and hole details are tabulated below. |

| Criteria | Explanation |
| --- | --- |
| | <br>**Beutong hole location plan** |

| Criteria | Explanation |
|---|---|
| | |

**Highlands Gold Indonesia Drilling**

| Hole | UTM East | UTM North | RL | Az | Dip | TD |
|---|---|---|---|---|---|---|
| 001BE96 | 230354 | 495288.1 | 917 | 330 | -60 | 67.6 |
| 002BE96 | 230314.7 | 495365.6 | 937 | 330 | -60 | 121 |
| 003BE96 | 230245.1 | 495489.2 | 976 | 330 | -60 | 111.7 |
| 004BE96 | 230191.5 | 495581.9 | 1024 | 330 | -60 | 121 |
| 005BE96 | 230147.3 | 495670.8 | 1071 | 330 | -60 | 121.8 |
| 006BE96 | 230390.4 | 495627.5 | 1044 | 330 | -60 | 120.4 |
| 007BE96 | 230438.4 | 495536.7 | 999 | 330 | -60 | 120.4 |
| 008BE96 | 230486.4 | 495442.2 | 975 | 330 | -60 | 120.3 |
| 009BE96 | 230536.2 | 495353.2 | 928 | 330 | -60 | 120.6 |
| 010BE96 | 230663.1 | 495537.8 | 975 | 330 | -60 | 120.2 |
| 011BE96 | 230615.1 | 495630.4 | 996 | 330 | -60 | 126.6 |
| 012BE96 | 230565.3 | 495721.3 | 1036 | 330 | -60 | 120.4 |
| 013BE96 | 229541.9 | 495117.8 | 1179 | 0 | -90 | 120.4 |
| 014BE96 | 229591.8 | 495028.8 | 1181 | 0 | -90 | 121 |
| 015BE96 | 229637.9 | 494939.8 | 1175 | 0 | -90 | 120.2 |
| 016BE96 | 229492.1 | 495208.6 | 1154 | 150 | -60 | 120.2 |
| 017BE96 | 229442.2 | 495297.6 | 1127 | 150 | -60 | 120.2 |
| 018BE96 | 229396.1 | 495390.3 | 1098 | 150 | -60 | 120.8 |
| 019BE96 | 229346.3 | 495479.3 | 1072 | 150 | -60 | 112.6 |
| 020BE97 | 229298.3 | 495570.1 | 1050 | 150 | -60 | 38.2 |
| 021BE97 | 229764.4 | 495557.4 | 1025 | 150 | -60 | 120.1 |
| 022BE97 | 229838.2 | 495422.1 | 976 | 150 | -60 | 80 |
| 023BE97 | 229934.1 | 495238.6 | 1020 | 150 | -60 | 90.5 |
| 024BE97 | 228586.6 | 494468.3 | 1189 | 0 | -90 | 63 |
| 025BE97 | 228805.7 | 494877.8 | 1173 | 330 | -60 | 120.2 |
| 026BE97 | 228719 | 495037.3 | 1139 | 150 | -60 | 120 |
| 027BE97 | 228844 | 495216.3 | 1147 | 150 | -60 | 88.4 |
| 028BE97 | 229041 | 495260.1 | 1200 | 150 | -60 | 87.7 |
| 029BE97 | 228991.7 | 494943.8 | 1196 | 330 | -60 | 80 |
| 030BE97 | 229090 | 494761.7 | 1154 | 330 | -60 | 38 |
| 031BE97 | 229187.8 | 494583.8 | 1101 | 330 | -60 | 79.9 |
| 101BE97 | 229565.9 | 495071.4 | 1181 | 330 | -60 | 358 |
| 102BE97 | 229759.7 | 494713.7 | 1093 | 330 | -60 | 20 |
| 103BE97 | 229117.9 | 495502.2 | 1088 | 150 | -50 | 316 |
| 104BE97 | 228906.3 | 495508.5 | 1087 | 150 | -50 | 195 |

| Criteria | Explanation |
|---|---|
| | Freeport McMoRan Copper & Gold Inc. Drilling |

| Hole | UTM East | UTM North | RL | Az | Dip | TD | Hole | UTM East | UTM North | RL | Az | Dip | TD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BC001-01 | 230295.4 | 495366.5 | 928.4 | 330 | -60 | 150 | BC015-03 | 230346.3 | 495434.9 | 946.2 | 0 | -90 | 150 |
| BC001-02 | 230295.4 | 495366.5 | 928.4 | 30 | -60 | 150 | BC016-01 | 230222.5 | 495410.8 | 923 | 0 | -60 | 150 |
| BC001-03 | 230295.4 | 495366.5 | 928.4 | 180 | -60 | 150 | BC016-02 | 230222.5 | 495410.8 | 923 | 180 | -60 | 150 |
| BC001-04 | 230295.4 | 495366.5 | 928.4 | 0 | -90 | 150.3 | BC016-03 | 230222.5 | 495410.8 | 923 | 0 | -90 | 150 |
| BC002-01 | 230402.8 | 495355.3 | 925.1 | 0 | -60 | 150 | BC017-01 | 230074.1 | 495706.3 | 1058.4 | 180 | -60 | 96.9 |
| BC002-02 | 230402.8 | 495355.3 | 925.1 | 180 | -60 | 150.1 | BC017-02 | 230074.1 | 495706.3 | 1058.4 | 0 | -60 | 150 |
| BC003-01 | 230506.4 | 495324.9 | 943 | 0 | -60 | 150.2 | BC017-03 | 230074.1 | 495706.3 | 1058.4 | 270 | -60 | 150 |
| BC003-02 | 230506.4 | 495324.9 | 943 | 180 | -60 | 150 | BC018-01 | 230390.6 | 495761.6 | 1046.4 | 180 | -60 | 150 |
| BC004-01 | 230157 | 495426 | 923.8 | 0 | -60 | 150 | BC018-02 | 230390.6 | 495761.6 | 1046.4 | 0 | -60 | 150 |
| BC004-02 | 230157 | 495426 | 923.8 | 180 | -60 | 134.5 | BC018-03 | 230390.6 | 495761.6 | 1046.4 | 240 | -60 | 150 |
| BC004-03 | 230157 | 495426 | 923.8 | 90 | -60 | 150.5 | BC019-01 | 229842.4 | 495116.8 | 1048.1 | 45 | -60 | 83.3 |
| BC005-01 | 229599.8 | 495070.3 | 1148.9 | 270 | -60 | 889.2 | BC019-01A | 229842.4 | 495116.8 | 1048.1 | 45 | -60 | 78.1 |
| BC005-02 | 229599.8 | 495070.3 | 1148.9 | 0 | -90 | 692.2 | BC019-01B | 229842.4 | 495116.8 | 1048.1 | 45 | -60 | 69.5 |
| BC005-02A | 229599.8 | 495070.3 | 1148.9 | 0 | -90 | 63.4 | BC019-02 | 229842.4 | 495116.8 | 1048.1 | 90 | -60 | 58 |
| BC005-03 | 229599.8 | 495070.3 | 1148.9 | 315 | -60 | 901 | BC020-01 | 230101.8 | 495160.7 | 1004.4 | 0 | -60 | 150 |
| BC005-04 | 229599.8 | 495070.3 | 1148.9 | 45 | -60 | 654.3 | BC020-02 | 230101.8 | 495160.7 | 1004.4 | 180 | -60 | 45.5 |
| BC005-05 | 229599.8 | 495070.3 | 1148.9 | 210 | -60 | 1364.5 | BC020-02A | 230101.8 | 495160.7 | 1004.4 | 180 | -60 | 48 |
| BC006-01 | 230292.6 | 495530.4 | 987.2 | 180 | -60 | 150 | BC020-03 | 230101.8 | 495160.7 | 1004.4 | 0 | -90 | 150 |
| BC006-02 | 230292.6 | 495530.4 | 987.2 | 0 | -60 | 150 | BC021-01 | 230190.7 | 495174.1 | 975 | 0 | -60 | 150 |
| BC007-01 | 230301.6 | 495746.3 | 1102.8 | 180 | -60 | 150 | BC021-02 | 230190.7 | 495174.1 | 975 | 180 | -60 | 143 |
| BC007-02 | 230301.6 | 495746.3 | 1102.8 | 0 | -90 | 150 | BC022-01 | 230321.2 | 495129.3 | 973.8 | 180 | -60 | 49.5 |
| BC007-03 | 230301.6 | 495746.3 | 1102.8 | 225 | -60 | 150 | BC022-02 | 230321.2 | 495129.3 | 973.8 | 0 | -90 | 150 |
| BC008-01 | 230152.2 | 495695.8 | 1078.4 | 0 | -90 | 150 | BC023-01 | 230202.3 | 495057.8 | 1008.5 | 0 | -60 | 73 |
| BC008-02 | 230152.2 | 495695.8 | 1078.4 | 0 | -60 | 150 | BC023-02 | 230202.3 | 495057.8 | 1008.5 | 0 | -90 | 103 |
| BC009-01 | 230400.1 | 495548 | 980.3 | 180 | -60 | 150 | BC024-01 | 230401.7 | 495114.8 | 976.1 | 0 | -60 | 84.1 |
| BC009-02 | 230400.1 | 495548 | 980.3 | 0 | -60 | 150 | BC025-01 | 229763.7 | 494824.6 | 1100 | 0 | -90 | 603 |
| BC010-01 | 230168.8 | 495306.5 | 932.6 | 0 | -60 | 150 | BC025-02 | 229763.7 | 494824.6 | 1100 | 270 | -60 | 1081 |
| BC010-02 | 230168.8 | 495306.5 | 932.6 | 180 | -60 | 150 | BC025-03 | 229763.7 | 494824.6 | 1100 | 210 | -60 | 197 |
| BC010-03 | 230168.8 | 495306.5 | 932.6 | 45 | -60 | 150 | BC025-03A | 229763.7 | 494824.6 | 1100 | 210 | -60 | 283 |
| BC010-04 | 230168.8 | 495306.5 | 932.6 | 225 | -60 | 150 | BC026-01 | 229929.5 | 495322.1 | 966 | 180 | -60 | 150 |
| BC011-01 | 230317.3 | 495259.5 | 919.5 | 0 | -60 | 326.5 | BC026-02 | 229929.5 | 495322.1 | 966 | 225 | -60 | 150 |
| BC011-01A | 230317.3 | 495259.5 | 919.5 | 0 | -60 | 52.5 | BC027-01 | 229751.3 | 495362 | 975.2 | 180 | -60 | 150 |
| BC011-02 | 230317.3 | 495259.5 | 919.5 | 330 | -60 | 700 | BC027-02 | 229751.3 | 495362 | 975.2 | 0 | -60 | 144.3 |
| BC011-03 | 230317.3 | 495259.5 | 919.5 | 300 | -60 | 259.2 | BC028-01 | 229602.8 | 495363.6 | 977.5 | 180 | -60 | 150 |
| BC011-03A | 230317.3 | 495259.5 | 919.5 | 300 | -60 | 445.7 | BC028-02 | 229602.8 | 495363.6 | 977.5 | 0 | -60 | 140.8 |
| BC011-04 | 230317.3 | 495259.5 | 919.5 | 180 | -60 | 619.5 | BC028-03 | 229602.8 | 495363.6 | 977.5 | 270 | -60 | 150 |
| BC011-05 | 230317.3 | 495259.5 | 919.5 | 0 | -90 | 426.5 | BC029-01 | 230068.6 | 495425.2 | 925.7 | 45 | -70 | 292.8 |
| BC012-01 | 229013.5 | 494886.2 | 1190.3 | 70 | -60 | 655.8 | BC029-01A | 230068.6 | 495425.2 | 925.7 | 45 | -70 | 869 |
| BC013-01 | 230083.6 | 495307.6 | 951.8 | 0 | -60 | 150 | BC029-02 | 230068.6 | 495425.2 | 925.7 | 0 | -60 | 900 |
| BC013-02 | 230083.6 | 495307.6 | 951.8 | 180 | -60 | 144 | BC030-01 | 228383.9 | 494119.6 | 1118.4 | 0 | -60 | 150 |
| BC013-03 | 230083.6 | 495307.6 | 951.8 | 270 | -60 | 150 | BC031-01 | 228863.8 | 494029.5 | 1152.4 | 0 | -90 | 150 |
| BC014-01 | 229126.9 | 495095.6 | 1211.8 | 0 | -60 | 900.2 | BC032-01 | 228094.5 | 494230.6 | 1119.9 | 0 | -60 | 150 |
| BC014-02 | 229126.9 | 495095.6 | 1211.8 | 0 | -90 | 125 | BC033-01 | 228806.2 | 494486.3 | 1136.2 | 0 | -90 | 150 |
| BC014-03 | 229126.9 | 495095.6 | 1211.8 | 135 | -60 | 596 | BC034-01 | 228656.5 | 494450.8 | 1167.7 | 0 | -90 | 150 |
| BC015-01 | 230346.3 | 495434.9 | 946.2 | 180 | -60 | 150 | BC035-01 | 228505.9 | 494238.3 | 1137.7 | 0 | -90 | 150 |
| BC015-02 | 230346.3 | 495434.9 | 946.2 | 0 | -60 | 150 | | | | | | | |

| Criteria | Explanation |
|---|---|

**Tigers Copper Singapore No 1 Pte. Ltd. Drilling**

| Hole | UTM East | UTM North | RL | Az | Dip | TD |
|---|---|---|---|---|---|---|
| BEU0600-01 | 230496 | 495373 | 945 | 350 | -70 | 158.1 |
| BEU0600-02 | 230504 | 495317 | 943 | 350 | -72 | 446.1 |
| BEU0600-03 | 230496 | 495373 | 945 | 350 | -70 | 232.4 |
| BEU0700-01 | 230321 | 495796 | 1101 | 170 | -67 | 210.5 |
| BEU0700-02 | 230402.7 | 495355.2 | 925 | 346 | -48 | 290 |
| BEU0700-03 | 230402.7 | 495355.2 | 925 | 346 | -63 | 459.2 |
| BEU0700-04 | 230402.7 | 495355.2 | 925 | 346 | -72 | 461.7 |
| BEU0700-05 | 230402.7 | 495355.2 | 925 | 346 | -84 | 459.4 |
| BEU0700-06 | 230402.7 | 495355.2 | 925 | 174 | -83 | 163.5 |
| BEU0700-07 | 230402.7 | 495355.2 | 925 | 174 | -83 | 407.2 |
| BEU0700-07 | 230402.7 | 495355.2 | 925 | 174 | -83 | 407.2 |
| BEU0800-01 | 230295.6 | 495363.2 | 929.9 | 350 | -64 | 220.5 |
| BEU0800-02 | 230295.6 | 495365.2 | 929.9 | 350 | -74 | 349.9 |
| BEU0800-03 | 230295.6 | 495365.2 | 929.9 | 350 | -84 | 335.9 |
| BEU0800-04 | 230232 | 495819 | 1137 | 170 | -66 | 239.1 |
| BEU0800-05 | 230314 | 495260 | 924 | 350 | -70 | 525 |
| BEU0800-06 | 230232 | 495819 | 1137 | 170 | -88 | 415.1 |
| BEU0800-07 | 230232 | 495819 | 1137 | 170 | -45 | 190.5 |
| BEU0800-08 | 230314 | 495260 | 924 | 350 | -80 | 227.8 |
| BEU0800-09 | 230292.6 | 495530.4 | 987.1 | 188 | -80 | 497 |
| BEU0800D-01 | 230278 | 495321.4 | 936.4 | 2 | -76 | 924.4 |
| BEU0900-01 | 230200 | 495372 | 919 | 350 | -74 | 794.5 |
| BEU0900-02 | 230200 | 495372 | 919 | 347 | -58 | 274.4 |
| BEU0900-03 | 230200 | 495372 | 919 | 347 | -90 | 472.4 |
| BEU0900-04 | 230200 | 495372 | 919 | 176 | -78 | 367.1 |
| BEU0900-05 | 230200 | 495372 | 919 | 170 | -65 | 327.3 |
| BEU1000-01 | 230104 | 495315 | 943 | 170 | -90 | 495.1 |
| BEU1000-02 | 230104 | 495315 | 943 | 348 | -78 | 444.6 |
| BEU1000-03 | 230081 | 495364 | 918 | 350 | -76 | 219.2 |
| BEU1000-04 | 230104 | 495315 | 943 | 170 | -75 | 337 |
| BEU1000-04 | 230104 | 495315 | 943 | 170 | -75 | 337 |
| BEU1000-05 | 230081 | 495364 | 918 | 350 | -73 | 400 |
| BEU1000-05 | 230081 | 495364 | 918 | 350 | -73 | 400 |
| BEU1100-01 | 229995 | 495342 | 945 | 350 | -76 | 506.5 |
| BEU1100-02 | 229995 | 495342 | 945 | 175 | -65 | 414.1 |
| BEU1100-03 | 229995 | 495342 | 945 | 175 | -78 | 404.2 |
| BEU1700D-01 | 229371.4 | 495388.4 | 1082.1 | 156 | -79 | 1592.3 |

**PT Emas Mineral Murni Drilling**

| HOLE | UTM East | UTM North | RL | Az | Dip | TD |
|---|---|---|---|---|---|---|
| BEU0500-01 | 230583.0 | 495460.0 | 956.0 | 350 | -80 | 510 |
| BEU0900-06 | 230201.0 | 495379.0 | 919.7 | 68 | -52 | 71.9 |
| BEU0900-07 | 230202.9 | 495374.4 | 919.4 | 68 | -57 | 87.8 |
| BEU0900-08 | 230154.6 | 495427.7 | 924.9 | 92 | -55 | 607.8 |
| BEU1350-01 | 229793.0 | 495035.0 | 1130.0 | 341 | -57 | 750.6 |
| BEU1350-02 | 229793.0 | 495035.0 | 1130.0 | 3 | -72 | 750 |
| BEU1450-01 | 229694.0 | 494939.0 | 1158.0 | 340 | -65 | 750 |

**Drilling and Core Sampling Protocols**

H&A has not sighted any protocol or procedural documentation for the HG drilling, nor any certified protocol documentation for the FPT drilling campaign. The following passages are reported by FPT in their 2009 technical report on the project "PTEMM_Technical Report_2009.pdf".

| Criteria | Explanation |
|---|---|
| | Of HG work, Freeport states:<br><br>"Drilling in 1996 was limited to a depth of approximately 120 metres because of the limited capacity of the "man portable" drill used to carry out the drilling."<br><br>Of their own work they state:<br><br>"Four drill rigs were employed on the program including a man-portable scout Maxi 150 drill capable of drilling to 150m NQ, and three deep capacity drills: LF70-01, LF70-06, LY-44 capable of drilling between 900 and 1400m depth NQ. A total of 91 drill holes for 23,044m was completed during the 2007 to 2008 program.<br><br>Drill penetration rates were poor overall averaging around 14m per day. Drilling with the shallow Maxi 150 rig was the most efficient. Hole loss was significant especially in the Fault Crush Zone where the combination of broken rock, clay gouge and alteration lead to 13 collapsed hole that could not reach the target depth.<br><br>Drill core samples were collected for all drilling that included PQ, HQ, and NQ core sizes. The core size depends on the ground conditions and depth of the hole. Core was placed in corrugated plastic core trays with lids and transported to the Alue Baru Drill Camp core logging area. In the logging area the core was carefully washed, labeled and photographed. Following photography the core was measured for recovery, RQD, magnetic susceptibility, specific gravity, and PIMA analysis for alteration minerals by geotechnicians. Detailed geological logging was then completed by geologists, and the sample intervals marked out for sampling. Sample intervals of 3m are the standard but a range of between 2.5 to 3.5 meter lengths is acceptable.<br><br>The drill core was split in half lengthwise along the core sample interval using a mechanical splitter. One half was placed into the sample bag for preparation and analysis and the other half returned to the drill core box for storage and future reference."<br><br>20 holes drilled by TCS in 2011 and early 2012 followed the same procedures as those undertaken by Freeport. These being BEU0700-[01-04], BEU0800-[01-09], BEU0900-[01-05], BEU1100-[01,02]<br><br>TCS and EMM adopted revised protocols in March 2012 and the following 26 holes were processed according to the procedures outlined in "DD_Protocols_Photos updated_v1_Final_20120815.docx". These being BEU0500-01, BEU0600-[01-03], BEU0700-[03-05,07], BEU800D-01, BEU900-[04-08], BEU1000-[01-05], BEU1100-[01-03], BEU1350-[01-02], BEU1450-01, BEU1700D-01. |

| Criteria | Explanation |
|---|---|
| | Two site visits were undertaken by TCS Operations Manager in 2012 and 2014 to assess adherence to these protocols and, although no formal reports were produced, TCS confirm that site personnel were diligently following protocols when processing core.<br><br>The primary sub-sampling was set at ½ core, split length-wise, for all drilling programmes:<br><br>• There is no record of the HG procedure for collecting samples.<br>• FPT document to "Cut the Core with a hammer or Splitter". Personal communication with FPT personnel uncovered that this protocol of mechanically splitting core was undertaken for the more competent segments of core from the 45 holes drilled in 2007. A core saw was used for the 46 holes drilled in 2008, where core was wrapped in plastic film (Glad Wrap) and packing tape prior to cutting. All broken or incompetent segments of core were sampled directly from the tray utilising a blunt wooden instrument. It is highly likely that the mechanical splitting and "halving" with a "chunk of wood" would introduce a bias in favour of the competent material during sampling (as observed by H&A in February 2012 when reviewing TCS coreyard procedures where only the easy to grab pieces of core were collected and friable material was crushed and settled in the base of the tray channels).<br>• Prior to March 2012, TCS wrapped the more competent core in plastic film (Glad Wrap) and packing tape prior to cutting with a diamond core saw. H&A observed during a site visit in late February 2012 that wrapping was not undertaken diligently or consistently on the core and hence has lower confidence on the integrity of the primary samples pre March 2012 than for those collected post February 2012 when the core yard procedures were upgraded and enforced. Incompetent or crumbling core was sampled directly from the core tray (pre March 2012) as per FPT protocols by splitting and collecting the material with a blunt wooden instrument. Post February 2012 TCS (and EMM in 2018) used a sharp steel cleaver and brushes and scoops to split and collect both the competent and incompetent material from crumbly segments of core.<br><br>**Risk relating to sampling procedures**<br><br>Issues affecting confidence in resource estimate relating to sampling procedures:<br><br>• Sample weights for 3m intervals are nominally 7.5kg for fresh ½ NQ3 core, 13.5kg for fresh ½ HQ3 core and 21kg for fresh ½ PQ3 core. The large primary sample sizes are of concern with regard to maintaining representivity during subsequent sample reduction procedures. A field/sample-reduction duplicate assay programme was implemented in March 2012 (and routinely undertaken) to assess the representivity of analytical samples, the results of which show that there is good repeatability of assays throughout the sample reduction process.<br>• The quality of the initial sample from the core tray is a key concern regarding the reliability of assay data and there is a suggestion that the FPT and early TCS procedures were inappropriate for this purpose. The relative weighting of samples |

| Criteria | Explanation |
|---|---|
| | prepared by these procedures in estimating grades in the resource model is considered when classifying the resource estimate.<br><br>**Core logging**<br><br>Holes have been logged at the core shed, on a sample interval basis, to provide geological and mineralisation descriptions utilised in generating the resource domains in this estimate. Exceptions are:<br><br>• All 35 HG holes are missing geology logging.<br>• Freeport holes:<br>  ○ BC005-02A and BC025-03A and TCS holes BEU0600-03 and BEU0700-06 are missing geology logs.<br>  ○ 73 holes are missing up to 25m of geology logging at the beginning of the hole and nine of these holes are missing up to 30m of geology logging from additional intervals.<br>• There is no clay logging of all 35 HG drillholes and holes BC011-01A and BC025-03 from the FPT drilling.<br><br>There is no oriented core at Beutong, hence the logged structural data is of limited use.<br><br>H&A did not find any reason to question that the logging is adequate for modelling the Beutong geology and mineralisation at the scale undertaken for the 2019 resource estimate. |
| Drilling techniques | Four drilling programs were undertaken in the evaluation the Beutong Project. These are detailed in the "Sampling techniques" section (above) and summarised here:<br><br>• 1996-97: NQ drilling of 35 holes totalling 4,122m<br>• 2007-08: PQ, HQ and NQ triple-tube diamond drilling programme of 91 holes totalling 23,044m<br>• 2011-14: PQ, HQ and NQ triple-tube diamond drilling programme of 34 holes totalling 14,262m.<br>• 2018: PQ, HQ and NQ triple-tube diamond drilling programme of 7 holes totalling 3,528m. |
| Drill sample recovery | Recovery logs for 30% of HG holes and 10% of both FPT and TCS holes are missing from the dataset evaluated as part of the 2019 resource estimate. Although there is a significant percentage of data missing for analyzing the relationship between recovery and grade, the available data is considered sufficient to make an assessment on the overall affect recovery has on grade for each of the drilling programmes. There was no investigation into the accuracy of the core recovery logging.<br><br>**Length Core Recovery Data**<br><br>Length core recovery shows improvement for each drilling programme *[Length core recovery = length of core recovered expressed as a percentage of length of metres drilled]*: |

| Criteria | Explanation |
| --- | --- |
| | • Overall recovery for the HG drilling is poor, with only 27% of mineralised intervals (samples) recording recoveries of >90%. 52% of the HG mineralised samples have recorded recoveries of <80%.<br>• The recorded data from the FPT drilling programme show marked improvement in recoveries, however, with only 38% of mineralised intervals showing recoveries of >90% and 30% of samples showing recoveries of <80%, the dataset is still considered to be significantly affected by recovery issues.<br>• TCS focused on improving and maintaining core recovery during their drilling programme and the results of their effort show, with 60% of the mineralised samples having recoveries of >90% and only 15% of samples showing recoveries of <80%. The TCS dataset is likely to be less impacted by recovery issues than data from the earlier two programmes.<br>• The EMM drilling shows good length core recovery with 91% of the mineralised samples recording recoveries of >90% and only 6% of samples recording recoveries of <80%. As with the TCS dataset, this dataset is likely to be less impacted by length recovery issues than data from the earlier the FPT and HG programmes.<br><br>**Length Core Recovery vs Grade**<br><br>There is a noticeable negative correlation between length core recovery and copper grade, particularly in the TCS dataset. It is likely that the inverse relationship shows up better in the TCS dataset than in the FPT or HG dataset as this data better reflects the relative difficulty in drilling conditions between weakly and strongly mineralised material (as TCS focused strongly on maximizing recoveries) whereas recovery in the earlier programmes may be affected by drilling protocols governed by goals other than maximising recovery (such as maximising drill metres).<br><br>The low percentage of poor recovery intervals in the EMM drilling dataset means that there is insufficient data to determine if there is any correlation between length core recovery and copper grade in this dataset.<br><br>**Volume Core Recovery Data**<br><br>Evaluation of the core shows that preferential loss or retention of material is occurring in friable and clay rich intervals. The photo below shows an example of clayey material having been washed or scrubbed out of fractures and the core has been affected by partial, volume or interstitial core loss, which in places is extreme and it presents as rubbly sections (and often as measurable length core loss). Length core recovery is measured at 90% for the core in this photo however volume core recovery is significantly lower. |

| Criteria | Explanation |
| --- | --- |


**Core showing significant clay alteration and partial/preferential or volume core loss.**

TCS introduced the logging of partial core loss where, if present, loss is logged as trace, moderate or severe. 60% of core from the modelled clay zone show moderate to severe partial core loss which is a higher portion than that for the non-clay zone material (still significantly high at 46%). Partial core loss will impact on the representivity of the samples at Beutong. H&A observed that the handling of core during processing also preferentially favoured the loss of friable material, especially as the core dried out. It is suspected that the partial core loss during handling and sampling has been severe in the past and would have persisted, though significantly reduced, with the improved TCS and EMM handling protocols.

Four of the seven holes drilled by EMM traverse the modelled clay zone and moderate to severe partial loss is observed in this dataset. 73% of the mineralised intervals record moderate volume loss and 9% record severe volume loss.

**Volume Core Recovery vs Grade**

Core recovery at Beutong appears to preferentially favour the more competent material. As yet it is unknown if the preferential recovery (or loss) has biased measurements of the core wrt the in situ values (assays, SGs, geotech, logging etc.). It is quite likely that a portion of the improvement in Cu, Au and Ag grades in the TCS and EMM datasets (over the FPT dataset) can be attributed to better recoveries and core handling procedures employed to obtain more representative samples for assay. If this is the case then loss is resulting in an underestimation of grade at Beutong. It is unlikely that the effect of core loss can be quantified; however an investigation into the preferential loss is required so that the affect

<table>
<tr><th>Criteria</th><th>Explanation</th></tr>
<tr><td></td><td>can be qualified and the risk to the resource estimate is better understood.</td></tr>
<tr><td>Logging</td><td>Core logging<br><br>Holes were logged at the core shed, on a sample interval basis, to provide geological and mineralisation descriptions utilised in generating the resource domains for the 2019 estimate. Exceptions are:<ul><li>All 35 HG holes are missing geology logging.</li><li>Freeport holes:<ul><li>BC005-02A and BC025-03A and TCS holes BEU0600-03 and BEU0700-06 are missing geology logs.</li><li>73 holes are missing up to 25m of geology logging at the beginning of the hole and nine of these holes are missing up to 30m of geology logging from additional intervals.</li></ul></li><li>Clay logging of historical holes was undertaken from core photographs. There is no clay logging of all 35 HG drillholes and holes BC011-01A and BC025-03 from the FPT drilling as photographs from these holes are not available.</li></ul>Core photography exists for FPT, TCS and EMM holes which offer a way of quickly validating logging on an as-required basis.<br><br>There is no oriented core at Beutong, hence the logged structural data is of limited use.<br><br>H&A did not find any reason to question that the logging is adequate for modelling the Beutong geology and mineralisation at the scale undertaken for the 2019 resource estimate.</td></tr>
<tr><td>Sub-sampling techniques and sample preparation</td><td>Core Sampling<br><br>There are no surviving records describing how the 1,488 HG drill core samples were collected, prepared and assayed.<br><br>Sampling of the FPT drill core is described in the protocols document “Tatacara Belah Core.doc” which states to:<ul><li>Cut the Core with a hammer or Splitter. Personal communication with FPT personnel uncovered that:<ul><li>the protocol of mechanically splitting core was undertaken for the more competent segments of core from the 45 holes drilled in 2007.</li><li>A core saw was used for the 46 holes drilled in 2008, where core was wrapped in plastic film (Glad Wrap) and packing tape prior to cutting.</li><li>All broken or incompetent segments of core were sampled directly from the tray utilising a blunt wooden instrument. [It is highly likely that the mechanical splitting and “halving” with a “chunk of wood” would introduce a bias in favor of the competent material during sampling (as observed by H&A in February 2012 when reviewing TCS coreyard procedures where only the easy to grab pieces of core were collected and friable material was crushed and settled in the base of the tray channels).]</li></ul></li></ul>TCS drill core sampling changed during their drilling campaign:<ul><li>Prior to March 2012, TCS wrapped the more competent core in plastic film (Glad Wrap) and packing tape prior to cutting with a diamond core saw. H&A observed during a site visit in late February 2012 that wrapping was not undertaken diligently</li></ul></td></tr>
</table>

| Criteria | Explanation |
|---|---|
| | or consistently on the core and hence has lower confidence on the integrity of the primary samples pre March 2012 than for those collected post February 2012. Sections of crumbling core were sampled directly from the core tray as per FPT protocols by splitting and collecting the material with a blunt wooden instrument.<br>• Post February 2012 the core yard procedures were upgraded and enforced where core wrapping prior to cutting was diligently undertaken and incompetent or crumbling core was sampled directly from the core tray using a sharp steel cleaver and brushes and scoops to split and collect both the competent and incompetent material from crumbly segments of core. This practice was continued with the sampling of the EMM drill core in 2018. |

Core was sampled at the following lengths:

| Company | Core Diameter | Number of Samples | | | | | | Average Length | |
|---|---|---|---|---|---|---|---|---|---|
| | | 0 to 1m Length | >1 to 2m Length | >2 to 3m Length | >3 to 4m Length | >4m Length | Not Assayed | >4m Length | Not Assayed |
| Highlands Gold | NQ | | 1459 | 21 | 5 | 3 | 44 | 8.7 | 20.3 |
| Freeport | PQ | | | 525 | 39 | | 22 | | 9.4 |
| | HQ | | 1 | 2374 | 164 | 1 | 67 | 6.0 | 21.7 |
| | NQ | | 1 | 3382 | 242 | 17 | 5 | 5.5 | 53.5 |
| | BQ | | | 108 | 34 | | | | |
| Tigers Copper Singapore No 1 | PQ | 1 | 4 | 789 | 44 | | 19 | | 11.6 |
| | HQ | 1 | 205 | 1911 | 98 | 1 | 14 | 6.0 | 16.6 |
| | NQ | | 49 | 1415 | 104 | 1 | 1 | 4.2 | 3.3 |
| Emas Mineral Murni | PQ | | 500 | 6 | | | 6 | | 4.3 |
| | HQ | | 894 | 19 | | 1 | 1 | 6.0 | 8.5 |
| | NQ | | 311 | 8 | | | | | |

**Risk relating to sampling procedures**

Issues affecting confidence in resource estimate relating to sampling procedures:

- Sample weights for 3m intervals are nominally 7.5kg for fresh ½ NQ3 core, 13.5kg for fresh ½ HQ3 core and 21kg for fresh ½ PQ3 core. The large primary sample sizes are of concern with regard to maintaining representivity during subsequent sample reduction procedures. A field/sample-reduction duplicate assay programme was implemented in March 2012 (and routinely undertaken) to assess the representivity of analytical samples, the results of which show that there is good repeatability of assay results throughout the sample reduction process.
- The quality of the initial sample from the core tray is a key concern regarding the reliability of assay data and there is a suggestion that the FPT and early TCS procedures were inappropriate for this purpose. The relative weighting of samples prepared by these procedures in estimating grades in the resource model is considered when classifying the resource estimate.

**Sample Preparation**

The preparation procedures for the HG samples are not recorded (comminution and sub-sampling). Preparation of the FPT, TCS and EMM drill samples was undertaken by PT Intertek Utama Services (ITS) in Medan. The laboratory followed flow sheets which detail the procedures, quality control and quality assurance measures (and performance criteria),

| Criteria | Explanation |
|---|---|
| | the numbering sequence to be followed and the production of QC duplicate sub-samples. In summary:<br><br>• Samples are receipted, weighed, dried at 105$^{O}$C and reweighed at Medan facility.<br>• Jaw crushed at -2mm:<br>  ○ FPT – sizing test 1:20 samples [no compliance criteria listed],<br>  ○ TCS and EMM – sizing test 1:10 samples [95% passing].<br>• Riffle split:<br>  ○ FPT – 1kg for pulverizing, retain coarse reject. Prepare second coarse split 1:15 samples.<br>  ○ TCS and EMM – 1.5kg for pulverizing, retain coarse reject. Prepare second coarse split 1:25 samples.<br>• Pulverise to -75µm:<br>  ○ FPT – sizing test 1:20 samples [95% passing], collect 4x250g pulp portions,<br>  ○ TCS and EMM – sizing test 1:10 samples [95% passing], collect 2x250g pulp portions, prepare third pulp 250g pulp portion 1:15. Retain reject.<br>• Pulps transported to ITS Jakarta, receipted and dried prior to analysis.<br><br>**Risk relating to sampling preparation procedures**<br><br>H&A notes that sample weights for 3m intervals are nominally 7.5kg for fresh ½ NQ3 core, 13.5kg for fresh ½ HQ3 core and 21kg for fresh ½ PQ3 core. The large primary sample sizes are of concern with regard to maintaining representivity during subsequent sample reduction procedures. A field/sample-reduction duplicate assay programme was implemented in March 2012 (and routinely undertaken) to assess the representivity of analytical samples, the results of which show that there is good repeatability of assay results throughout the sample reduction process and H&A is of the opinion that the reduction procedures, though not ideal, have minimal impact on integrity of subsamples obtained for assaying. |
| Quality of assay data and laboratory tests | **Assay Procedures**<br><br>The assaying procedures for the HG samples are not recorded. All assaying of HG, FPT, TCS and EMM samples was undertaken by PT Intertek Utama Services (ITS) at their Jakarta Laboratory. The following describes the ITS analytical methods:<br><br>• GA31: 1.00g charge; triple acid digest ($HCl/HNO_3/HClO_4$); AAS detection. Detection ranges:<br>  ○ Cu: 20ppm (No designated upper limit)<br>  ○ Ag: 5ppm (No designated upper limit)<br>• IC01: 0.5g charge; aqua regia digest (3:1 $HCl:HNO_3$ – most sulphide minerals are readily dissolved, however silicate and refractory mineral will remain largely undigested); ICP-OES detection. Detection range Ag: 0.1ppm to 200ppm<br>• IC30: 0.5g charge; triple acid digest ($HCl/HNO_3/HClO_4$ – preferred ore grade digest |

| Criteria | Explanation |
|---|---|
| | though not suitable for silicates) – volumetric detection. NB: solubility and upper limits are mineral dependent. Detection Ranges:<br>○ Cu: 2ppm to 100000ppm<br>○ Ag: 0.5ppm (No designated upper limit)<br>○ Mo: 1ppm (No designated upper limit)<br>○ As: 5ppm (No designated upper limit)<br>• 3AH1/OE101: 0.5g charge; triple acid digest ($HCl/HNO_3/HClO_4$ – preferred ore grade digest though not suitable for silicates) – Optical Emission Spectroscopy detection. NB: solubility and upper limits are mineral dependent. Detection Ranges:<br>○ Cu: 2ppm to 100000ppm<br>○ Ag: 0.5ppm (No designated upper limit)<br>○ Mo: 1ppm (No designated upper limit)<br>○ As: 5ppm (No designated upper limit)<br>• FA30: 30g charge; Fire Assay; AAS detection. Detection range Au: 0.01ppm to 30ppm<br>• XR01: 10 g pressed pellet XRF. Detection ranges:<br>○ Mo: 1ppm to 10000ppm<br>○ As: 5ppm to 10000ppm<br>• XR02: Pressed Pellet XRF – over range elements (analysed by diluting the sample with silica prior to pressing of the pellet). Detection range As: 10ppm (No designated upper limit)<br><br>The element/method combinations for assays included in the resource estimate are presented in the following table. |

**Analytical Details - Resource Dataset**

| Company | Ag Method | | | | As Method | | | | | Au Method | | Cu Method | | | | Mo Method | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | GA31 | IC01 | IC30 | 3AH1 | XR01 | XR02 | IC30 | 3AH1 | Unkn | FA30 | Unkn | GA31 | IC30 | 3AH1 | Unkn | XR01 | IC30 | 3AH1 | Unkn |
| HG | | | | | | | | | 1488 | | 1488 | | | | 1488 | | | | 1488 |
| FPT | 247 | 1395 | | | 6886 | 2 | | | | 6888 | | 6888 | | | | 6888 | | | |
| TSC | | | 4772 | | | | 4772 | | | 4772 | | | 4772 | | | | 4772 | | |
| EMM | | | | 1739 | | | | 1739 | | 1739 | | | | 1739 | | | | 1739 | |

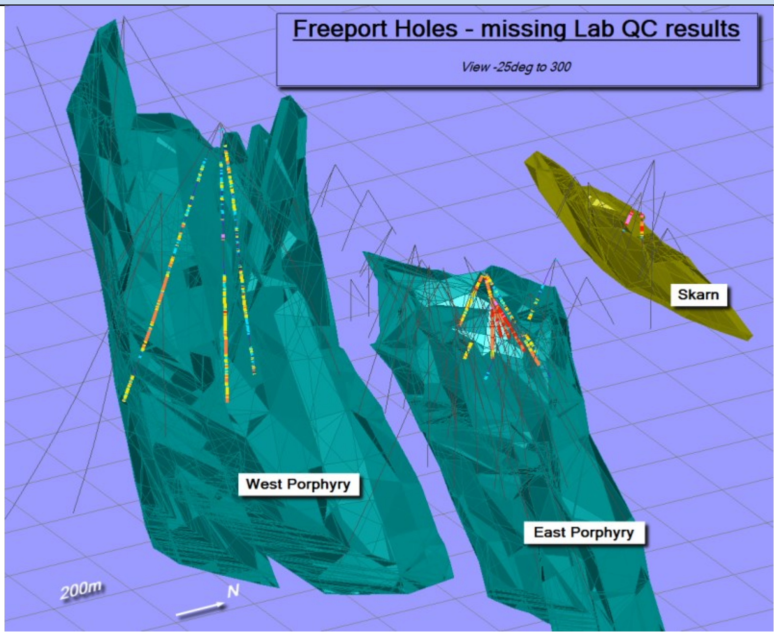
Assays for the Beutong project include an extensive multi-element dataset. Apart from the activities stated in this report relating to the target elements, this dataset has not been validated, analysed or utilised for the resource estimate.

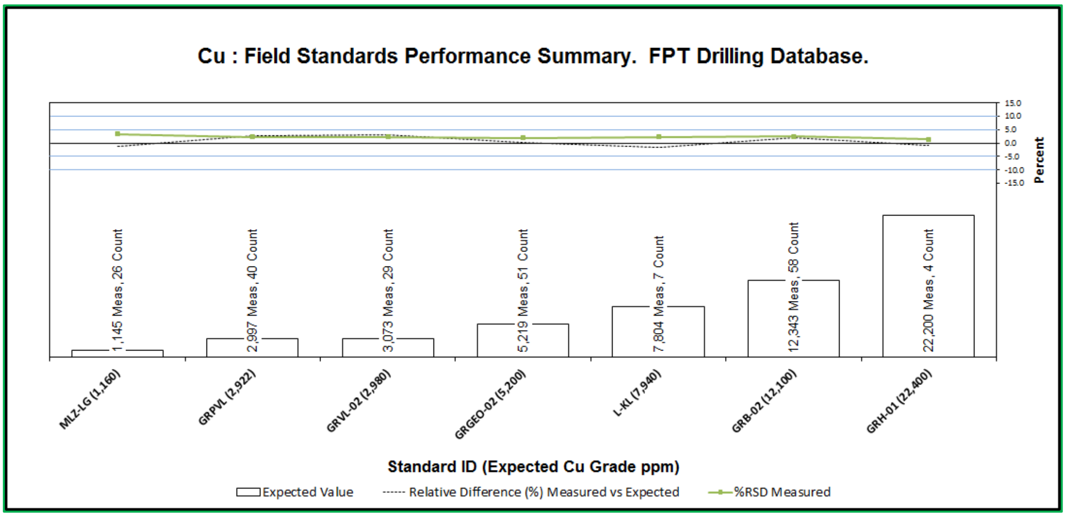
**QC programmes**

An assessment of the Cu, Au, Ag, Mo and As assay quality control data was undertaken prior to conducting the resource estimate. QC analysis is incomplete as there are a number of assay results not available for the FPT samples and there is no historic record of sample preparation or analytical methods undertaken on the HG samples nor any preserved QC assay results for evaluating the reliability of their assays. Given that the HG data contributes to a minor portion of the resource estimate the risk associated with this lack of information

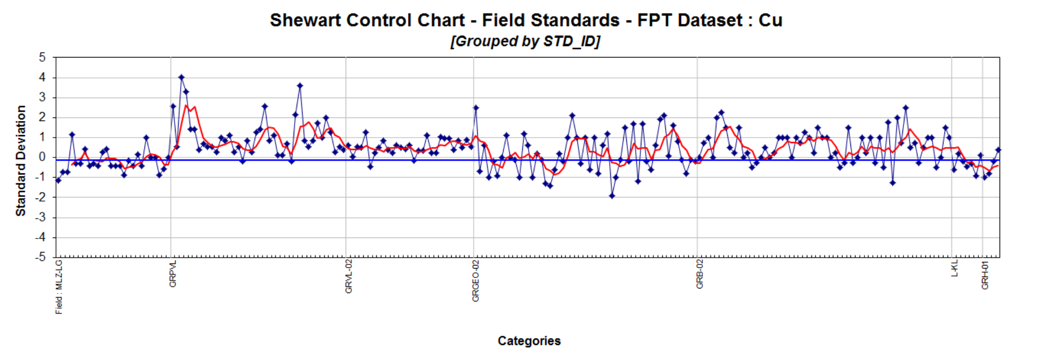
| Criteria | Explanation |
|---|---|
| | is considered low and does not impact on the classification of the resource estimate. The missing FPT QC data requires locating and including into the evaluation of assay reliability in future resource estimates. However if this is not possible, the omission of this data is considered of low risk to the estimate as it is considered a high probability that the missing data would show similar good quality and consistency as shown in the available QC data.<br><br>Core yard sampling protocols and laboratory sample preparation flow sheets exist for the FPT, TCS and EMM programmes. It is unknown if FPT undertook any laboratory audits. Findings from a H&A review in 2012 of the ITS facilities and practices are included in the “Audits or Reviews” section (below).<br><br>**Standard Insertion Rates**<br><br>Both FPT and early TCS protocols (pre March 2012) submitted small batches of samples, typically 20-40 in number and included one or two client standards in each batch. This insertion rate is inappropriate for assessing data reliability of individual batches and can only be confidently used in assessing the long-term consistency of the laboratory’s performance. Following March 2012 TCS increased the number of samples per batch to better fit with ITS’s ideal batch sizes of 150 to 200 samples and increased the number of QC samples to typically between 6 and 8 standards per batch (suitable for assessing both the short and long term laboratory performance). Inclusion of standards in FPT and TCS batches is incomplete, with 20 of 259 batches missing Copper QC assays, 60 missing Au QC assays, 246 missing Ag QC assays and 198 missing Mo QC assays.<br><br>EMM batch size and standards inclusion rates followed those of TCS post March 2012 (between 1:14 and 1:20 due to a decrease in batch sizes from those employed by TCS). The first four of 25 batches submitted by EMM for assay contained standards with certified values for Au, Cu and Mo, following which appropriate standards were added that included Ag in the certified values list.<br><br>ITS inserted laboratory standards into the analytical stream at the rate of 1:15 samples.<br><br>**Blank Insertion Rates**<br><br>FPT dispatches included one coarse blank sample. The pre-March 2012 TCS batches typically contain one or two coarse blank samples which was increased to a rate of 1:25 samples post-March 2012. These were selectively inserted to be concentrated within mineralised intervals. All coarse blanks are identified as being made from limestone.<br><br>TCS inserted coarse blanks and certified pulp blanks into dispatches post-March 2012 at the rates of 1:25 samples. The pulp blanks follow the standards in the analytical sequence.<br><br>EMM inserted coarse blanks and certified pulp blanks into dispatches at the rates of 1:50 samples. The pulp blanks follow the standards in the analytical sequence.<br><br>ITS inserted laboratory blanks at the rate of 1:15 samples into the FPT analytical stream |

| Criteria | Explanation |
|---|---|
| | which was decreased to the rate of 1:25 samples for the TCS and EMM analytical work.<br><br>20 of 259 batches were submitted without either client coarse blanks or pulp blanks.<br><br>**Duplicates and Repeat Insertion Rates**<br><br>FPT directed ITS to generate a -2mm coarse crush duplicate at the rate of 1:15 samples and insert these samples into the analytical stream immediately following the original samples. This appeared to be a late amendment to the laboratory protocols, possibly post 2nd March 2007 (as indicated on the sample flowsheet) and was not consistently undertaken. 109 of the 217 FPT batches contain crusher duplicate assays.<br><br>No crusher duplicates were prepared for TCS batches pre-March 2012. Post-March 2012 -2mm coarse crush duplicates were included nominally at a rate of 1:25 samples (as directed in protocols), however rates vary from 1:10 to 1:60 samples.<br><br>Crusher duplicates were included in the EMM batches at a nominal rate of 1:25 samples (as directed in protocols), however rates vary from 1:20 to 1:50 samples.<br><br>Pulp duplicates were inserted into the sampling stream by ITS. This was undertaken irregularly for the FPT work, with only 21 batches containing 1 or 2 duplicates and routinely for the TCS and EMM work at a rate of 1:15 samples.<br><br>Laboratory repeat assays were undertaken at a nominal rate of 1:15 samples however most batches show higher insertion rates as a result of selective re-assaying during the laboratory QC process.<br><br>**Missing Laboratory QC results**<br><br>ITS reported the client data and the laboratory QC results in separate files for the FPT programme. By detaching the lab QC results from the client results, ITS created a system that allowed related QC results to be lost from their system. Of the 217 client data reports re-issued by ITS for the FPT programme only 164 Lab QC reports were re-issued. Details of the missing QC data for batches are:<br><br>• 53 DPOs namely from ACH-25 and EMM-0002 to EMM-0060 excluding:<br>    o EMM-0055 (QC supplied), and<br>    o EMM-0032, EMM-0037, EMM-0045, EMM-0048, EMM-0053, EMM-0058 (DPO's not used for drill core samples)<br>• 18 Holes affected; BC001-[01-04], BC002-[01,02], BC003-[01,02], BC004-[01-03], BC005-[01-03], BC006-[01,02], BC007-[01,02]<br>• 1,338 samples affected.<br>• The grades in the Western Porphyry (Inferred classification, JORC 2012) and upper central area of the Eastern Porphyry (Measured classification, JORC 2012) are informed by these holes. These are depicted in the following figure: |

| Criteria | Explanation |
| --- | --- |
| | <br><br><br>The omission of this data is considered of low risk to the estimate as:<br><br>• there are a significant number of assays in the vicinity of this data where reliable assay quality is well established from QC data and these assays contribute to block grades at the same or greater extent as the samples of unknown quality,<br>• the western porphyry mineralisation is classified as Inferred Resources, which considers the lower confidence in assay reliability for this mineralisation than at the Eastern Porphyry, and<br>• it is considered a high probability that the missing data would show similar good quality and consistency as shown in the available QC data.<br><br>**Sizing Data Analysis**<br><br>ITS does not routinely report the results of their crushing and pulverizing sizing checks. H&A did not request to obtain this data from the FPT and TCS batches as the duplicate samples show acceptable precision that does not impact on resource classification (JORC 2012). The sizing analysis data is required for evaluating reasons as to why some dispatches show higher percentages of duplicate pairs with poorer repeatability than that shown for the overall dataset.<br><br>Sizing analysis for 14 of the 25 batches submitted by EMM were made available and show that all crusher and pulveriser tests returned greater than 95% of material passing -2mm and -200# respectively.<br><br>**Cross Contamination and Grade Carryover – Blanks Analysis**<br><br>Coarse blanks, pulp blanks and laboratory blanks all show that there are no issues regarding contamination or grade carryover that impacts on resource classification under JORC (2012 |

| Criteria | Explanation |
| --- | --- |
| | Edition). A single elevated Cu value of 1070ppm was returned for the coarse blank inserted into batch EMM-0196. This blank indicates that there is an issue with contamination or carryover in this batch which contains assays for samples from 108m to 225m in hole BC029-01. This mineralisation is modelled as being part of the Inferred Outer East Porphyry Resource.<br><br>**Analytical Accuracy and Precision – Standards Analysis**<br><br>Sixty-three different certified standards were utilised over the years by FPT, TCS and ITS, some of which employed by ITS are too low in value to be of use in assessing assay data quality. Only those standards with certified values for target elements that are within the significant ranges (wrt mineralisation and the laboratory method lower detection limits) were used in assessing the analytical accuracy and precision of the assays used in the resource estimation.<br><br>The QC was assessed through performance summary plots and shewart control charts (split by worker) as per the examples presented below.<br><br>Observations from the Certified Standards Evaluation for each element follows:<br><br>**Copper Standards**<br><br>There are no discernible issues with the Cu assay accuracy or precision that can be identified from the standards QC dataset that require consideration in classifying the resource estimate under JORC (2012).<br><br><br>**Copper Field Standards- FPT; overall performance summary.** |

| Criteria | Explanation |
|---|---|




| Cu | MLZ-LG | GRPVL | GRVL-02 | GRGEO-02 | L-KL | GRB-02 | GRH-01 |
|---|---|---|---|---|---|---|---|
| +3 SD: | 1370.00 | 3129.00 | 3520.00 | 5500.00 | 9260.00 | 13300.00 | 23900.00 |
| +2 SD: | 1300.00 | 3060.00 | 3340.00 | 5400.00 | 8820.00 | 12900.00 | 23400.00 |
| +1 SD: | 1230.00 | 2991.00 | 3160.00 | 5300.00 | 8380.00 | 12500.00 | 22900.00 |
| **Certified Value:** | **1160.00** | **2922.00** | **2980.00** | **5200.00** | **7940.00** | **12100.00** | **22400.00** |
| -1 SD: | 1090.00 | 2853.00 | 2800.00 | 5100.00 | 7500.00 | 11700.00 | 21900.00 |
| -2 SD: | 1020.00 | 2784.00 | 2620.00 | 5000.00 | 7060.00 | 11300.00 | 21400.00 |
| -3 SD: | 950.00 | 2715.00 | 2440.00 | 4900.00 | 6620.00 | 10900.00 | 20900.00 |
| %RSD: | 6.03% | 2.36% | 6.04% | 1.92% | 5.54% | 3.31% | 2.23% |
| **Mean Value:** | **1145.38** | **2997.25** | **3073.45** | **5219.02** | **7804.29** | **12343.10** | **22200.00** |
| Av. %MPD: | -1.26% | 2.58% | 3.14% | 0.37% | -1.71% | 2.01% | -0.89% |
| Av. \|%MPD\|: | 2.85% | 2.62% | 3.39% | 1.62% | 2.21% | 2.52% | 1.34% |
| %RSD: | 3.31% | 2.28% | 2.22% | 2.00% | 2.23% | 2.51% | 1.42% |
| Count: | 26 | 40 | 29 | 51 | 7 | 58 | 4 |

**Copper Field Standards- FPT; Shewart control chart.**

**Gold Standards**

The FPT Au standards show acceptable accuracy, however precision for the field/client standards is relatively high (wrt past observations by H&A). There are no discernible issues with the Au assay accuracy or precision that can be identified from the laboratory or TCS and EMM field standards QC dataset that require consideration in classifying the resource estimate under JORC (2012).

FPT prepared their own standards which did not include an intra-pulp homogeneity test (a procedure that usually involves neutron activation analysis for gold from multiple charges taken from a single pulp). It is likely that the quality of the standards is the issue highlighted in the FPT field Au QC analysis rather than any concern regarding the ITS analytical procedure. As gold a minor component of the mineralisation at Beutong, the precision of the FPT field standards is not considered in the classification of the resource estimate. An investigation into the reasons why the FPT field standards Au grades show lower precision than other datasets is advised to ensure that there are no reasons to doubt the quality of the ITS assay data.

**Silver, Molybdenum and Arsenic Standards**

There are discernible issues with both accuracy and precision observed in the silver, molybdenum and arsenic assays for both field and laboratory standards, predominantly in the FPT dataset. It is anticipated that these elements will contribute to the economics of the Beutong project in only a minor way and in addition, the FPT dataset is not a significant input into the Measured and Indicated Resources in the estimate. There is no consideration for the reliability of the Ag, Mo and As assays in classifying the resource under JORC (2012).

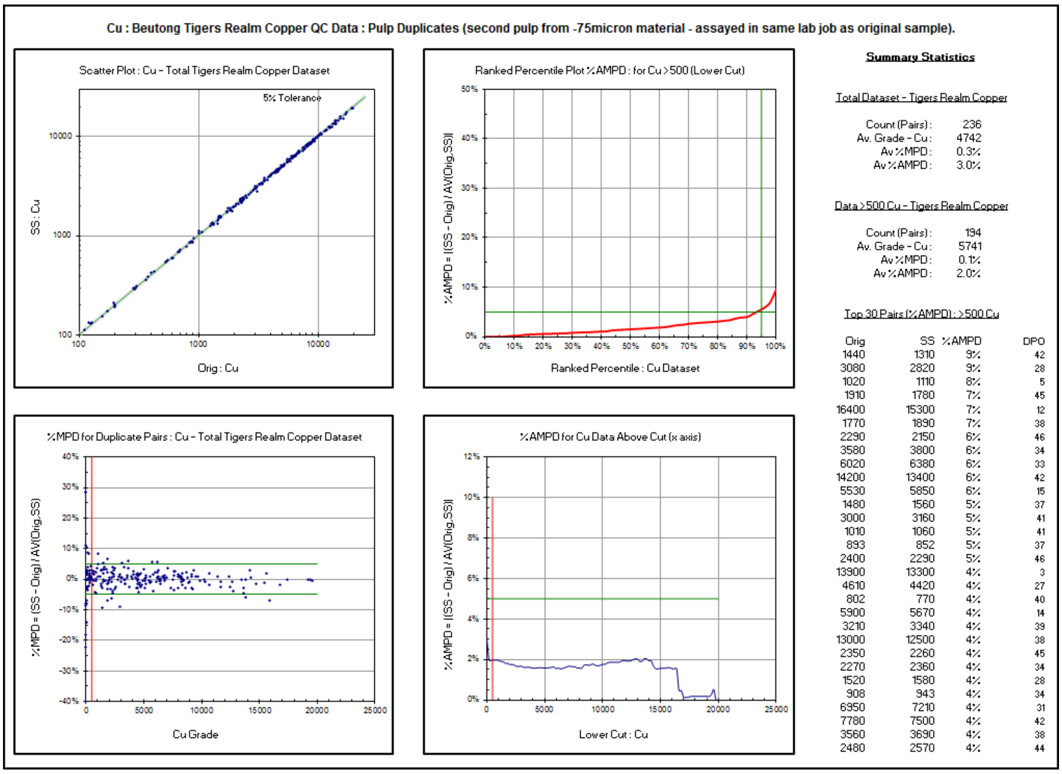
| Criteria | Explanation |
|---|---|

**Duplicate and Repeat Sample Analysis**

An example of the duplicate and repeat samples analysis is shown in the following figure (below). The FPT data shows that total variance for Cu assays introduced during sample preparation is 5%AAMPD (%Av. |Mean Paired Difference|) for crushing, splitting, pulverizing, pulp-sampling and taking the assay charge. The total variance for the TCS and EMM assays is shown to be 3%AAMPD. The variance measured at both the pulp and assay charge generation is 2%AAMPD for the FPT, TCS and EMM datasets, indicating that the pulverized material is well homogenized at both small and large scales of support. Similar analyses of the duplicate and repeat Au, Ag, Mo and As assay datasets show acceptable low levels of variance introduced during sample preparation.

There are no discernible issues identifiable from any of the -2mm coarse crush duplicate, pulp duplicate or repeat assay datasets from the FPT, TCS and EMM analytical programmes that impact on the classification of resources at Beutong (under JORC 2012).

Batches that show poor repeatability (high %MPD) of individual duplicate pairs have been identified and this information is supplied to EMM to be used as a guide in selecting samples for submission to reference laboratories in any future analytical programmes or resource update.




**TCS Pulp Duplicates analysis.**

| Criteria | Explanation |
|---|---|
| | **Assay Quality and Reliability Considerations**<br><br>It is of interest that in most cases the laboratory standards data shows significantly better accuracy and precision than the field submitted standards. This observation requires further investigation and highlights the necessity to submit a batch of samples to reference laboratories (including QC samples). The overall acceptable standard of the current QC data suggests that reference laboratory results should correlate well with the original ITS assays, however there is always a chance that they will not (possibly uncovering currently non-detectable issues) and this important step in the QC procedure is required for any future resource update. |
| Verification of sampling and assaying | There are no independent checks of drilling results, sample assays and only one set of twin holes at Beutong, drilled by EMM into high grade mineralisation. The twin holes in this pair report comparable grades for the target elements.<br><br>**Data Handling**<br><br>H&A is not aware of any documented management procedures relating to the HG data and has no comment on the provenance of this data.<br><br>H&A understands that the FPT, TCS and EMM drill core data was recorded on paper logging sheets and subsequently transferred into excel spreadsheets formatted identically to the paper copies. The digital entries were then collated into tables and entered into an Access™ database. Comma separated value assay results files were received from ITS and merged into the Access™ database utilising the sample number as the key field. Laboratory QC assay results are also stored in the Access™ database.<br><br>In March 2012 TCS instigated a project to re-organize and review all historic data and information and correct/validate the previous workers drilling data from source files uncovered during this work. In parallel to this, TCS's personnel constructed and corrected data within a Vulcan™ database while undertaking evaluation of the drilling and the geological interpretation of the Beutong deposit. The TCS Access™ database (now EMM) is the official dataset for the project and the Vulcan™ dataset is an alternative that has been utilised as a check dataset for validating the resource estimation data.<br><br>**Data audits**<br><br>There are no recorded audits of the drilling database. The FPT, TCS and EMM drilling datasets were validated by H&A prior to undertaking the 2019 resource estimate.<br><br>**Database Verification**<br><br>The provenance of the historic data compiled in the EMM database is largely unknown (HG and FPT data). The risks associated with unknown data history are significant enough to be a consideration in classifying a resource estimate under the JORC Guidelines. To alleviate this risk the entire FPT, TCS and EMM assay dataset was reconstructed from report files provided |

| Criteria | Explanation |
|---|---|

by ITS (excluding assays where files could not be located, affecting holes BC001-01, part-BC001-02, part-BC005-04, part- BC012-01, part- BC025-02 and BC028-02). ITS could not locate the report files for the HG assays. Cross-checking of the two datasets (EMM database and the recompiled dataset) showed that 632 FPT records were incorrect within the EMM database (mostly due to incomplete loading of elements and containing records of initial/preliminary assay releases that were reissued as final at a later date by ITS). The recompiled data assay data was utilised for the resource estimate.

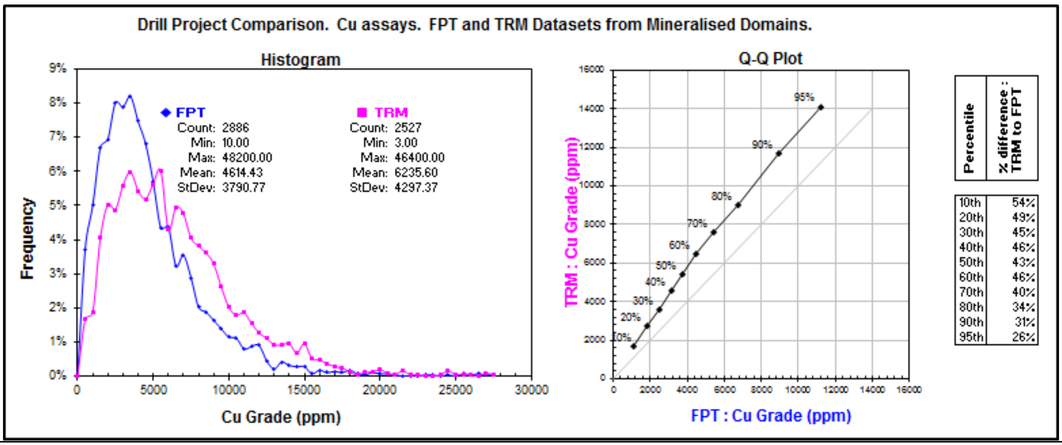
The 1ppm lower detection limit for the HG silver assays sits within the expected grade range at Beutong as does the 5ppm lower detection limit for method GA31 undertaken by FPT. All Ag assays for the HG dataset were excluded from the resource dataset. GA31 FPT silver assays less than the detection limit were removed from the resource estimate and the 1:5 inserted IC01 silver assays comprise the majority of Ag values for the FPT holes.

**Comparison of Assay Datasets**

The FPT and TCS assays and TCS and EMM assays were compared to assess if combining these datasets was appropriate for undertaking the resource estimate. The TCS and EMM assays are comparable when assessed locally (within 100m of EMM holes). No comparison was made with the earlier HG dataset as these holes have limited input into the grade interpolation at Beutong.

The FPT copper, gold and silver assay populations within the mineralised domains (porphyry, outer-porphyry and skarn) are negatively skewed compared to the TCS copper gold and silver assay populations (Cu and Au comparisons presented below). This trend is also observed when lower-cuts are applied (>5000ppm and >10000ppm Cu subsets) and when the assays from holes on section lines 800 and 900 are assessed, representing a restricted volume where mineralisation is likely to be comparable (>230125E and <230350E, >495250N and <495450N, >790RL; including holes BEU0800-[01-03], BEU0800D-01, BEU0900-[01-05], BC001-[02-04], BC004-[01-03], BC010-[01-04], BC011-[01-03], BC015-[01,03], BC016-[01-03]).

The molybdenum and arsenic assays are comparable between the FPT and TCS datasets.



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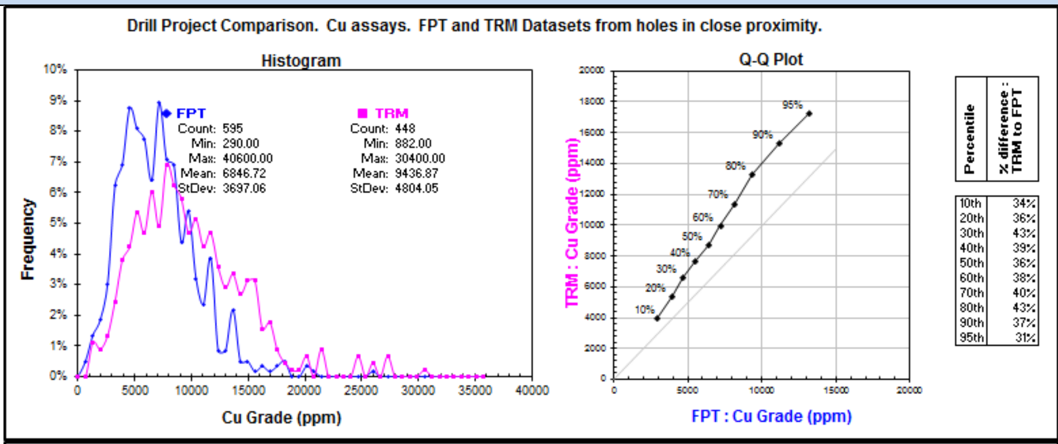


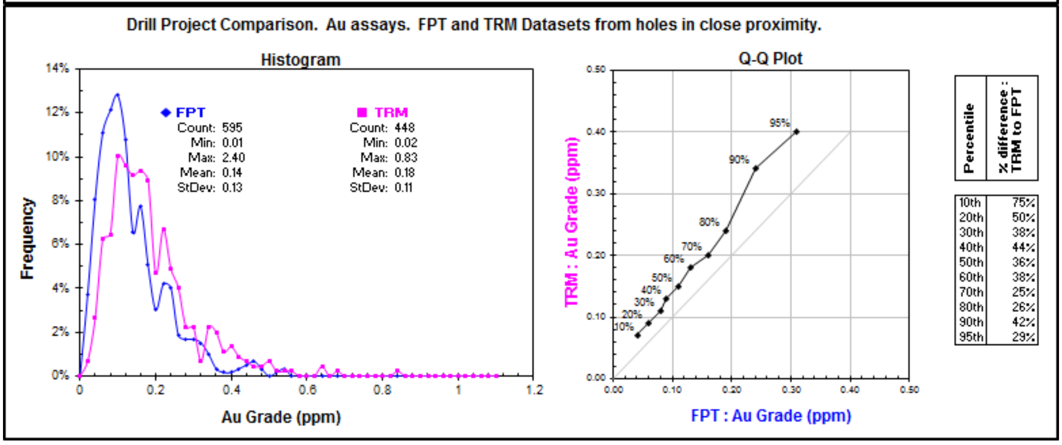


**Comparison of copper and gold assay populations between FPT and TCS datasets (denoted as TRM in these plots). The FPT dataset is negatively skewed compared to the TCS dataset. Improved drilling, core handling and sampling protocols by TCS may be responsible for better representivity of in situ material in samples submitted to ITS.**

FPT undertook check assays of 394 samples from 13 holes by IC30 (the analytical method used by TCS) which shows very good correlation with results from their routine method GA31, eliminating analytical method as the source of relative bias. QC data analysis supports the reliability of assays from both the FPT and TCS datasets.

The reasons for this relative bias is yet to be positively identified and qualified, however there are four key areas where TCS have improved the protocols and chances of getting better representivity of the deposit grades of the Beutong porphyry, namely:

- Focusing the drilling on the known mineralisation, as the purpose of the TCS drilling was to generate a dataset suitable for classifying resources as Indicated and Measured (JORC 2012). Their drilling may have concentrated on the better mineralised areas of the deposit, particularly between 200m and 500m below surface in the Eastern Porphyry, where TCS holes dominate.
- TCS drilled a higher percentage of PQ meters than FPT within the mineralised domains (15% vs 2%). Core recovery and sample representivity generally improves with increase in the primary sample size (core diameter).

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| Criteria | Explanation |
|---|---|
| | • TCS have focused on obtaining good core recovery in their drilling.<br>• Core handling and sampling procedures were improved for part of the TCS programme to be more suitable in maintaining the integrity of clay-rich and friable core. The friable core is common in the upper portions of the Eastern Porphyry, a volume where FPT and TCS holes are focused.<br>H&A considers that all of these factors contribute to improvement in sample and assay representivity in the TCS programme and that the relative bias affects the reliability of FPT data in informing the resource estimate. |
| Location of data | All work is undertaken and recorded in WGS84, UTM Zone 47N.<br>**Drill Collar Locations and Topographic Control**<br>Drillhole collar locations, orientations and total length are tabulated at the "Sampling Techniques" section (above).<br>The reliability of the collar locations for FPT and TCS drilled holes is well established with collars being surveyed by differential GPS methods. The seven EMM holes are located by standard GPS pickup. The FPT drill hole pick-up survey programmes are documented in two reports by contract surveyors PT Millar Bahroeny. H&A confirmed the location of TCS holes with site personnel during a site visit and again when resource models were reviewed and approved by the TCS senior geology staff. Details of how collar locations for the HG holes were determined by the original workers are not known. TCS crosschecked tabulated collar coordinates for the HG holes against geo-referenced historical maps and confirmed that coordinates within the database correlate with the plotted collars.<br>Inconsistencies exist between the supplied topographic models (a compass and tape derived DTM and the ASTER Global Digital Elevation Model). A topographic surface was generated for use in the resource estimate that utilised the drillhole collars and a perimeter rectangle draped on the SRTM surface at >400m from the modelled mineralisation.<br>H&A considers that the drillhole collar locations are known to an acceptable standard and that there is a high degree of confidence in their internal relationship.<br>**Downhole Surveys**<br>The HG and FPT downhole survey data was collected using a conventional Eastman single shot camera, and the TCS and EMM survey data was collected using a digital Reflex single shot camera. The magnetic declination at Beutong is currently approximately $1^{O}$ west. EMM does not adjust magnetic survey data to account for this small declination and H&A followed suite in undertaking the resource estimate.<br>Confidence in the accuracy of drillhole traces plotted for the HG and FPT holes is low as downhole surveys were either not taken (all HG holes and 15 FPT holes) or taken with long intervening intervals (hole traces for BC001-01, BC017-01, BC023-02, BC027-02, BC028-02 |

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<tr><th>Criteria</th><th>Explanation</th></tr>
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drilled by FPT are located with surveys taken at >100m downhole intervals).<br><br>
TCS holes were surveyed at 40-50m intervals and EMM holes at 25m. Subsequently the confidence in the hole trace and sample locations for these datasets is high.<br><br>
The TCS and EMM holes show mostly minor, gradual deviation in azimuths and very minor dip changes (holes tend to drop with depth). Holes BEU0700-03 and BEU0800-09 show a number of severe deviations in and around logged clay zones with poor core recovery (most obvious in BEU0800-09). Hole BUE1350-02 drilled by EMM shows a reversal in the change in dip with depth, initially declination decreases (hole trace dropping) and then increases overall from 250m depth (however two periods of declination decrease occurs beyond 250m). The generally predictable nature of hole locations shown in the TCS and EMM drilling suggests that the risk to a resource estimate in using data from the poorly located HG and FPT holes will be low and that sample location reliability is not a key consideration in classifying the resource estimate.<br><br>
Downhole surveys from the database were crosschecked against the collar survey details and the separately supplied Vulcan$^{TM}$ survey dataset and discrepancies resolved with the assistance of TCS personnel. Significant deviations in azimuth and dip measurements were investigated (± 5 degrees deviation between consecutive surveys) in conjunction with logging information and the drillhole trace determined by utilising adjusted azimuths and dips to account for severe, unexplained and most likely erroneous surveys (23 in total).<br><br>
Drillhole traces are defined by the Vulcan$^{TM}$ tangential desurvey method. The final downhole survey file used in the resource estimate comprises 786 validated survey data records.
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<tr><td>Data spacing and distribution</td><td>
167 diamond drillholes have been drilled at Beutong. The deposit is delineated by 113 of these holes, totalling 33,325m. The eastern porphyry and skarn bodies are mostly delineated by steeply angled holes clustered to form fan-like configurations, drilled from multi-use pads along 100m spaced section lines. The western porphyry is sparsely drilled, with the majority of the mineralisation loosely defined by holes drilled radially from six drill pads. A plan showing drill hole traces is included in the “Sampling techniques” section (above) and the following table gives an indication of the average drill spacing throughout the Beutong 2019 Resource for each Mineral Resource Classification (JORC 2012).<br><br>
<table>
<tr><th>Mineralisation</th><th>Resource Classification</th><th>Average Drill Spacing (m)<br>[Assumes uniform DH distribution]</th></tr>
<tr><td rowspan="3">East Porphyry</td><td>Measured</td><td>44</td></tr>
<tr><td>Indicated</td><td>69</td></tr>
<tr><td>Inferred</td><td>301</td></tr>
<tr><td>Outer East Porphyry</td><td>Inferred</td><td>59</td></tr>
<tr><td>West Porphyry</td><td>Inferred</td><td>224</td></tr>
<tr><td>Outer West Porphyry</td><td>Inferred</td><td>97</td></tr>
<tr><td rowspan="2">Skarn</td><td>Indicated</td><td>48</td></tr>
<tr><td>Inferred</td><td>153</td></tr>
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<br>
Drill density and orientation in the eastern porphyry and skarn mineralisation is sufficient to
</td></tr>
</table>

| Criteria | Explanation |
|---|---|
| | delineate geological and grade continuity at confidence levels reflected in the JORC classifications assigned to the 2019 resources (Measured, Indicated and Inferred for the eastern porphyry; Indicated and Inferred for the skarn mineralisation). The drill pattern in the western porphyry is such that geological and grade continuity can only be assumed and therefor no resources in this mineralisation can be considered for Measured or Indicated Resource classification under the JORC Code (2012).<br><br>Compositing for resource estimation was undertaken at 3m intervals (refer to "Estimation and modelling techniques" section for details). |
| Orientation of data in relation to geological structure | There is no discernible relationship between assay grades and drillhole orientations.<br><br>EMM personnel and H&A have not recognized any persistent prevailing veining or micro/meso-scale mineralizing orientations at Beutong. Furthermore there is no oriented core and limited logging data to effectively investigate this relationship through data interrogation methods. H&A considers that the majority of mineralised drill intercept lengths approximate true thicknesses (resulting in minimal impact on experimental variography) and that the modelling of the deposit in generating a resource estimate correctly accounts for any volume (tonnage) considerations.<br><br>H&A considered that any likely grade uncertainty relating to primary sampling orientations (eg. vein to core axis angles) is accounted for through classification of the resource estimate. With the mineralisation being both of porphyry and skarn style and of significant scale, and at the current sampling densities (a consideration in classifying the resource estimate), H&A considers that any local unfavorable primary sampling orientation would not materially impact on the global grade of the Measured and Indicated Resources at Beutong. Any risk to the estimate associated with the primary sampling orientation within the less densely drilled volumes of mineralisation is accounted for through the low confidence Inferred Resource Classification (JORC 2012) applied to these volumes. |
| Sample security | Sample security is not known for the HG programme. Although not audited for the FPT, TCS and EMM programmes, sample security relies on the diligence of personnel at the site processing facility and the use of numbered security zip ties between dispatching and receipting at the ITS sample preparation laboratory (these allow personnel to determine if samples were opened).<br><br>H&A, during a February 2012 site visit, did not observe any on-site facility or procedures suggesting subversive activity and the use of security tags and having company personnel accompany the couriers that delivered samples to the ITS preparation laboratory gives confidence that samples would have been received at the laboratory in the same state as they were when dispatched. H&A cannot rule out the possibility of tampering (as samples are dispatched in calico bags, packaged inside poly-weave bags) however, as the assay results for both core and quality control samples are as expected H&A considers the integrity |

| Criteria | Explanation |
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| | of samples has been maintained throughout their handling, preparation and assaying. |
| Audits or reviews | **Data**<br><br>H&A undertook a rebuild and audit of the assay database prior to resource estimation (refer to "Verification of sampling and assaying" section above).<br><br>Core photographs were utilised for checking geological and mineralisation logs during the TCS and EMM geological interpretation phase of the resource modelling.<br><br>**Core Yard**<br><br>Duncan Hackman from Hackman and Associates Pty Ltd (H&A) undertook a site inspection of the Beutong Project, the TCS core processing and storage facilities (both now EMM facilities) and the PT Intertek Utama Services sample processing and laboratory facilities from February 27, 2012 to March 3, 2012. The primary reason for visiting the prospect, core and laboratory facilities was to locate and confirm evidence of exploration activities reported by TCS and earlier workers, to observe the drilling and sampling procedures being conducted by TCS and to observe and confirm copper mineralisation in core and outcrop. H&A also assessed and modified core handling and sampling protocols employed by TCS to improve their suitability for preserving core and sample integrity, accounting for site and prospect specific conditions and features, so that greater reliability can be placed on data and information derived from the material. A protocols document was produced from this work and the updated protocols were also employed for the 2018 EMM programme.<br><br>H&A did not uncover any reason to question the exploration activities undertaken in exploring and evaluating the Beutong prospect nor to question the presence of copper mineralisation of the tenor and styles reported by EMM and previous workers.<br><br>Two site visits were undertaken by TCS Operations Manager to assess adherence to core yard protocols and, although no formal reports were produced, TCS confirm that site personnel were diligently following protocols when processing core. One management visit was undertaken during the 2018 drill programme and EMM confirms that personnel were diligently following protocols when processing core.<br><br>**Laboratory**<br><br>Intertek Utama Services, Jakarta Laboratory is currently ISO (International Standard) and KAN (Indonesian Standard) accredited, ISO17025 and LP-130-IDN respectively. H&A has received copies of the KAN certificates confirming accreditation for the Jakarta Laboratory from May 2, 2006 to present. Follow-up request for proof of certification for earlier times has not been successful and therefor H&A cannot comment on the accreditation status covering the entire period when samples were submitted to the ITS Medan and Jakarta facilities.<br><br>It is unknown if FPT undertook any laboratory audits and the following observations on the Laboratory can only be applied to the TCS programme. TCS requested that H&A undertake a |

| Criteria | Explanation |
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| | review of the ITS facilities in February 2012 to assess the laboratory's suitability for analyzing Beutong samples and to assist in designing appropriate coreyard and laboratory protocols to do so. H&A observed:<br><br>• The ITS sample preparation facility in Medan:<br>    o Was adequately equipped, except for ovens, which were of older convection styles and possibly not best suited for drying clayey samples.<br>    o The staff were trained in and diligently documenting procedures.<br>    o Was not in operation on the two days when visits were made.<br>• The ITS Jakarta Fire Assay facility:<br>    o Was adequately equipped and set-out for handling the workload observed during the visit.<br>    o The staff were trained in and diligently documenting procedures.<br>    o Can complete four firings in an 8hr shift.<br>    o Can processes 45 client samples in a firing, leading H&A to recommend that batches be submitted at multiples of 45, with 180 being the optimum size.<br>• The ITS Jakarta Wet-Lab:<br>    o The work place was adequately equipped and set-out.<br>    o Had an acceptable level of hygiene.<br>    o Readily accessible work flow-sheets and diligently completed monitoring paperwork.<br>• Analysis:<br>    o The facility was clean and well kept. Maintenance and service records of analytical instruments readily available for inspection.<br>    o Calibration liquors stored and handled with adequate care.<br>    o Paperwork adequate and diligently completed.<br>• Quality Control:<br>    o Records of internal and external calibration checks appropriate and diligently completed.<br>    o QC process adequate for Beutong assays.<br>    o No reporting of re-assay and check assay Lab job numbers with results.<br>• Reporting:<br>    o Adequate, however could be improved by reporting sizing information and sequence numbers and by reporting both client and laboratory (QC) results in the one file.<br><br>H&A is of the opinion that it would be highly unlikely that the Beutong samples would be compromised by being prepared and assayed at ITS and, in the event that QC results indicate a shortcoming in quality assurance or a breakdown in adherence to protocols that ITS has the right paperwork, being diligently completed, to undertake a thorough investigation to identify any causal issues. The thoroughness observed in designing and recording of protocols and work flow-sheets suggests that ITS has the commitment and tenacity to undertake the necessary changes to rectify any issues identified so as to minimize the |

| Criteria | Explanation |
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| | likelihood of sample quality/reliability breakdown reoccurring. |

**Reporting of Exploration Results**

| Criteria | Explanation |
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| Mineral tenement and land tenure status | **Tenure**<br><br>The Beutong project area is subject to a 10,000 hectare IUP Production license held 100% by PT Emas Mineral Murni (EMM, license no. 66 /1/IUP/PMA/2017). EMM has two shareholders. It is 80% owned by the Singaporean domiciled Beutong Resources Pte. Ltd. (BRPL) and 20% by the Indonesian domiciled PT Media Mining Resources (MMR). BRPL is in turn 100% owned by Tigers Copper Singapore No 1 Pte. Ltd. (TCS) which in turn is 100% owned by Asiamet Resources Limited (ARS).<br><br>The Beutong IUP is currently within its second year of a 20 year initial tenure period which, if kept in good standing, may be extended for a further 2 x 10 years, taking the ultimate expiry date to the 18th December 2057.<br><br>The EMM IUP no. 66 /1/IUP/PMA/2017 is subjected to the prevailing Indonesian Government royalty rates which are currently set at 4% for copper production and 3.75% for gold production. There are no signed agreements with any other company or individual with regards to royalty payments, back in rights, payments or any other agreements and encumbrances regarding the EMM IUP.<br><br>**Forestry**<br><br>There are 2 types of forest classification within the Beutong IUP area; Protected and Other Purposes. Based on Aceh Provinces's Department of Forestry function map (Number 522.51/4261-III), approximately 36.2% (3,617ha) of the IUP is designated as Areal Penggunaan Lain (APL) or Forest Other Purposes (open pit or underground mining permitted, and the remaining 63.8% (6383ha) is classified as protected or conservation forest (underground mining permitted, no open-pit mining).<br><br>The Beutong project area is 100% within the forest classification APL, the Ministry of Forestry does not require companies to obtain a Pinjam Pakai permit to conduct exploration activities within areas designated APL. No exploration has been carried out in areas outside of the APL area surrounding the Beutong Project.<br><br>**Land Ownership and Use**<br><br>Other than timber logging, there are no commercial undertakings covering the Beutong Project area. Local inhabitants in the Beutong Ateuh area farm along the Meureubo river that dissects the APL area within the IUP. The Beutong project is located on land owned by several families and EMM has established a cooperative relationship with these families, which has enabled total access to the project area and facilitated the smooth undertaking of exploration and evaluation programmes. |

| Criteria | Explanation |
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| Exploration done by other parties | All work relating to the Beutong 2019 Resource Estimate is presented in this document.<br><br>The following programmes have been undertaken within the Beutong IUP tenement over a 45 year period:<br><br>• British Geological Survey (BGS) and the Indonesian Bureau of Mineral Resources were the first to recognised mineralisation at Beutong through anomalous stream sediment samples taken during regional mapping and sampling programmes in the mid-1970s to mid-1980s.<br>• Rio Tinto Indonesia in joint venture, targeted the Beutong area through stream sediment sampling and mapping (1979-1981) and recognized the porphyry and skarn potential of the area.<br>• Two subsequent tenement holders since 1994 (and three workers, in joint venture noted in the "Sampling techniques" section above) have focused their exploration and evaluation work on the porphyry and skarn mineralisation at Beutong, drilling a total of 167 diamond holes, of which 113 holes (33,325m) are within and proximal to mineralisation now subject to the mineral resource estimate reported within. The Measured, Indicated and Inferred Mineral Resources at Beutong (JORC 2012) have been estimated for the West Beutong Porphyry, the East Beutong Porphyry and the Skarn Mineralisation.<br>• There are six exploration target areas identified by surface sampling, mapping, geophysical interpretation and limited scout drilling elsewhere in the IUP. Three high priority target areas are adjacent to and in interpreted geological continuity with the estimated resources at Beutong. |
| Geology | The geological environment that has shaped the geology and geomorphology of Sumatra is dominated by the Sunda Volcanic Arc generated by the subduction of the Indo-Australian plate beneath the Eurasian Plate.<br><br>**Beutong Geology**<br><br>The principal rock types at Beutong as defined by current mapping have been assigned to four units. From oldest to youngest these are:<br><br>1. metamorphosed sedimentary host rocks,<br>2. serpentinite that predates mineralization,<br>3. porphyry intrusions (at least 6) of the Beutong Intrusive Complex (BIC), includes the Beutong East Porphyry (BEP) and Beutong West Porphyry (BWP) and<br>4. post-mineralisation magmatic hydrothermal breccia and smaller occurrences of hydrothermal breccias cemented by pyrite or tourmaline and intrusion breccias.<br><br>Sedimentary rocks encompass the BIC on all sides, and belong to the Bale Formation of the Jurassic–Cretaceous Woyla Group. These units comprise a thick sequence of variably metamorphosed siltstone, argillite, sandstone and greywacke in the south and central |

| Criteria | Explanation |
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| | prospect area and reefal and deep water limestone units in the north. The meta-sediments strike in a south-easterly direction, parallel to the Sumatra Fault direction, and dip steeply to the north-northeast. The distribution of these rock types are shown on the geology map and cross-section below. A skarn front has developed along the northern margins of the BEP, where it is in contact with carbonate rocks. Massive basic volcanics, pillow basalts, volcaniclastic sandstones and tuffs of the Geumpang Formation occur in the central-southern project area (south of the BIC and drilled mineralised area).<br><br>Massive serpentinite, interpreted as altered harzburgite, is NW-SE trending and can be traced for more than 3km, primarily following the path of the Beutong River. This unit is locally sheared, mylonitic to schistose and brecciated and marks the inferred thrust fault contact between epiclastics to the southwest and limestone to the northeast.<br><br>The BIC measures approximately 2500m in northeast-southwest dimension by 900 meters in northwest-southeast dimension and is situated 4.5km north of the regional scale Sumatra Fault System. It occurs at the intersection of a NW-SE (Beutong Fault) trending thrust fault and NE-SW strike-slip fault, probably reflecting arc-parallel and arc-normal structures, respectively. The Beutong Fault is interpreted as a splay off the Sumatra Fault System. The BIC was emplaced in the early Pliocene (~4 – 4.66 Ma), into Jurassic–Cretaceous variably metamorphosed rocks of the Woyla Group, which contain northwest–southeast-trending dismembered ophiolite slivers. Late biotite porphyry dykes intrude the BEP, BWP and magmatic hydrothermal breccias and record the waning phases of the BIC in the late Pliocene (~2.58 – 3.06 Ma).<br><br>A large phreatomagmatic breccia body truncates the southern margin of the BEP and dips steeply north at approximately 80°. The breccia extends for a distance of at least 700 m in an east-west direction and has a maximum drilled thickness of 100 meters. The eastern margin remains undefined, and the recent drilling shows that the breccia, as anticipated, continues along the southern edge of the BEP however it appears to be migrating across to the northern hangingwall of the mineralisation and it is interpreted that it will truncate mineralisation to the east of the current eastern drill section (BEU0500). The breccia is highly polymict, clast to matrix supported, and contains abundant mineralized fragments in proximity to its contact with the BEP deposit. With respect to shape, the breccia resembles a tree, comprising a long narrow trunk with several major branches (injection breccias) angled outwards. This turns into an upward flaring funnel shaped breccia body towards surface, creating the impression from its surface expression of being an extensive geologic unit. The breccia is clearly late, but not the final manifestation of the Beutong system, as it is crosscut by the finer grained diorite dykes, and by a generation of quartz ± pyrite ± anhydrite veins. |

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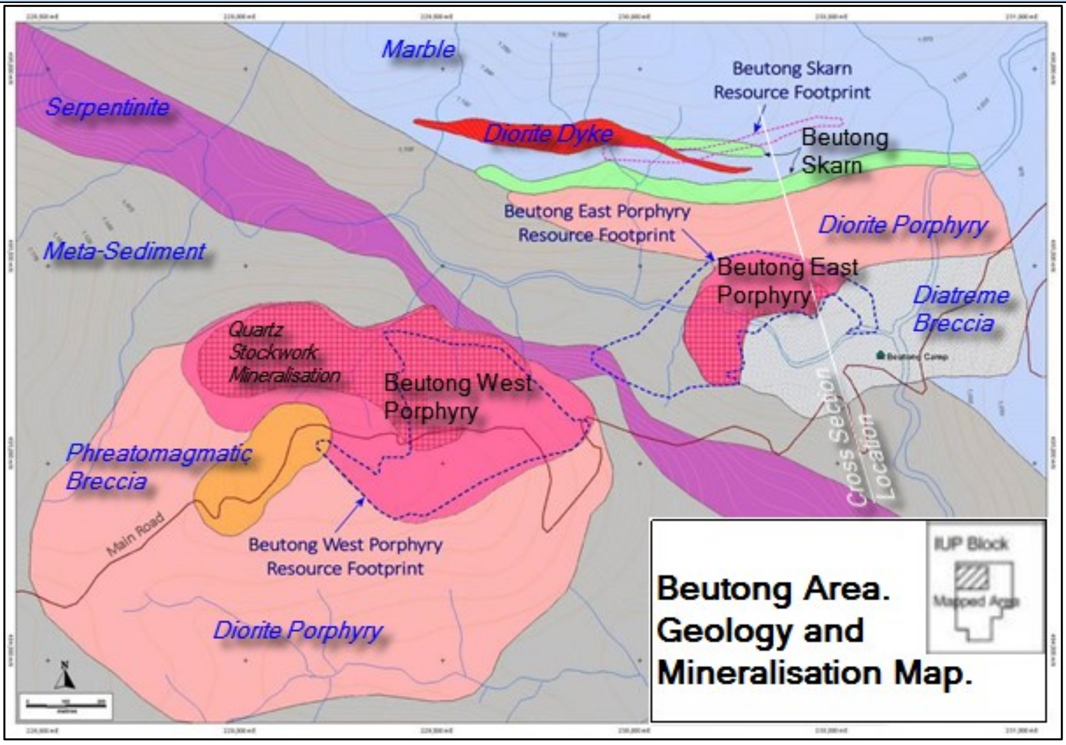
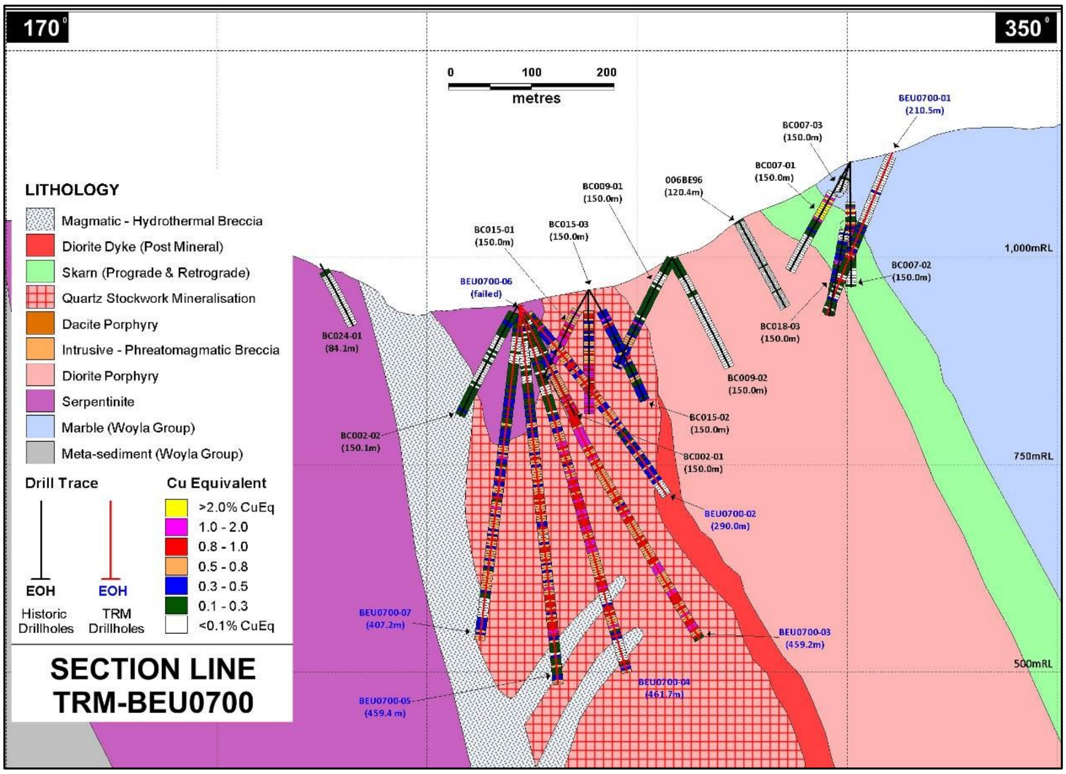



**Geological interpretation map of the Beutong Deposit, showing mapped BEP, BWP and Beutong Skarn mineralisation and the 850m RL resource footprint extrapolated to surface.**




**Cross section (BEU0700) through the BEP, showing strong copper-gold-molybdenum mineralization from surface. Note the injection breccias at depth, branching off the magmatic hydrothermal breccia. (CuEq = Cu% + (Mo ppm/10000 * 3.8883) + (Au g/t ***

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| Criteria | Explanation |
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| | **0.5089) + (Ag g/t * 0.0063))**<br><br>**Beutong Alteration**<br><br>The BIC shows characteristic porphyry alteration styles, manifest as a vertically and laterally zoned sequence of propylitic, argillic, phyllic and rare potassic alteration at depth. Superimposed on these is an advanced-argillic alteration assemblage as part of a "high-sulphidation epithermal" mineralization event. The advanced argillic alteration is most extensive at the BWP, where a 50 to 100m thick lithocap is preserved. Propylitic alteration is confined to the contact margins of the BIC and to post mineral dykes and late stage hydrothermal breccias.<br><br>Two zones of exoskarn ± endoskarn have formed along the contact of the Main Beutong Diorite (MBD) and carbonate rocks to the north, approximately 200 meters north of the BEP. The skarn bodies have an E-W orientation with an outcrop strike length of at least 800 meters and widths of between 10 and 60 meters. Drill results indicate at least 300 meters of vertical depth extent of the skarn alteration and mineralization. Exoskarn alteration comprises garnet and pyroxene, as the prograde assemblage, and magnetite, epidote, and tremolite as a retrograde mineral assemblage. The MBD exhibits varying degrees of endoskarn alteration along its northern margin, typically within 25 meters of the limestone. Endoskarn is characterized by garnet ± pyroxene fracture selvedge controlled alteration to more pervasive garnet – pyroxene alteration at the limestone contact. Epiclastic wall rocks are hornfelsed (dark brown), and secondary biotite is converted to chlorite-illite, instead of muscovite.<br><br>**Beutong Mineralisation**<br><br>Porphyry related copper-gold-molybdenum mineralization at Beutong is invariably contained within stockwork quartz vein systems developed within apical parts of the BEP and BWP and to a lesser extent in the immediate wall rocks (classic wall-rock porphyry mineralization). Mineralization defines two distinct, broad and coherent zones within the BEP and BWP that are sub-vertical and steeply-dipping towards the north. At an approximate 0.3% copper contour the mineralized zones vary in thickness from 175 to 500 meters, but generally average 200m in width and extend to at least 900m depth. Porphyry mineralization outcrops at the BEP, while it is intersected from shallow to moderate depths at the BWP underneath the alteration lithocap (50 to 125 meters). With respect to copper and gold mineralisation, the two element grades do not correlate well, with typically Cu(%):Au(ppm) ratios observed between 1:1 and 8:1. Copper is dominant (~0.60% Cu) in the core of each porphyry system, and gold mineralisation is widely distributed and of low grade tenor (~0.13 g/t Au).<br><br>Molybdenite mineralization is late, overlaps strong copper mineralization and is concentrated mainly in 25 to 75 meter wide zones along the northern porphyry margins and locally along the southern margins. Molybdenite mineralization does not coincide with the magmatic hydrothermal breccia. However, the breccia does contain quartz-anhydrite vein fragments that contain appreciable coarse molybdenite and moderate chalcopyrite. |

| Criteria | Explanation |
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| | Molybdenite occurs as disseminated grains, in centerline vugs of porphyry “B veins”, in stringers along vein selvages and in hairline veinlets.<br><br>High-sulphidation associated covellite, digenite and chalcocite dominated sulphide assemblage is superimposed onto the early pyrite and chalcopyrite dominant porphyry-type mineralization resulting in hypogene enrichment of the lower grade porphyries. High sulphidation feeder structures are telescoped onto both the BWP and BEP porphyry stockwork systems and are characterized by residual vuggy quartz containing enargite-covellite-pyrite and/or massive pyrite containing appreciable covellite, enargite and luzonite. These zones contain high-grade copper and gold mineralization (intercepts of up to 7.75% Cu and 5.65g/t Au over three meters).<br><br>Locally, zinc–silver–lead mineralization overprints the porphyry mineralization and is typically coincident with the high sulphidation style mineralization and the magmatic hydrothermal breccia or found locally within narrow shear zones. With this style of mineralization there is a distinct change in the texture and colour of the drill core, altering to a darker colour and with notable ‘dark sulphide’ minerals. Black sphalerite Fe>Zn is interpreted to occur in hotter conditions, and therefore could account for this deep seated zinc mineralization. The highest zinc grades are below the 300m RL, and commonly associated with late stage native sulphur alteration. Interestingly, locally the gold, molybdenite and arsenic grades can be very high with the zinc mineralisation.<br><br>There are two mineralized skarns within the Beutong deposit area. The Southern skarn contains strong copper–gold mineralisation and is interpreted to have formed along the marble front between the BEP and calcareous lithologies to the north. In the top 50 meters the most obvious mineralization is malachite-azurite with other green blue copper oxides and carbonates. The oxides and carbonates transition to sulphides at depth, which is dominated by pyrite, chalcopyrite and lesser bornite. The Northern Skarn contains significant zinc-lead-silver mineralization.<br><br>Strongly quartz stockwork-veined phyllic and potassic altered porphyry and quartz vein fragments have been identified in the phreatomagmatic breccia (along the southern margin of the BEP), these fragments can contain significant chalcopyrite-bornite mineralization. The breccia also contains fragments of mineralized garnet-diopside-magnetite skarn, epiclastics and serpentinite.<br><br>Although unrelated to the porphyry, garnierite has been identified and exists as light green encrustations that are widespread in drill holes and in surface outcrops. Drill intersections show that the garnierite has significant Ni and Co values, with broad drill intersections of ~0.20% Ni and ~100ppm Co. The garnierite may be related to the high sulphidation alteration, formed by acid fluids dissolving nickel sulfides (likely pentlandite) in serpentinite and re-precipitating Ni and Co as garnierite. Garnierite occurs to deep levels in drill holes, and in this case is not related to weathering. |

| Criteria | Explanation |
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| |   **Aerial view of the Beutong deposit, looking northwest, and showing the approximate boundaries of the BWP, BEP and Beutong Skarn (width of photo ~3.5km).** |
| Drill hole Information | A summary of drillhole metadata and collar location of holes is presented in the “Sampling techniques” section. Four drilling programs were undertaken in the evaluation the Beutong Project, these being:<br>• 1996-97: NQ drilling of 35 holes totalling 4,122m<br>• 2007-08: PQ, HQ and NQ triple-tube diamond drilling programme of 91 holes totalling 23,044m<br>• 2011-14: PQ, HQ and NQ triple-tube diamond drilling programme of 34 holes totalling 14,262m.<br>• 2018: PQ, HQ and NQ triple-tube diamond drilling programme of 7 holes totalling 3,528m.<br>The following table list the significant and modelled intercepts at Beutong and are employed in estimating the 2019 Mineral Resources: |

| Criteria | Explanation |
|---|---|

| Hole | Resource Domain | Intercept | From | To | Interval | Cu(%) | Au(ppm) | Ag(ppm) | Mo(ppm) |
|---|---|---|---|---|---|---|---|---|---|
| 002BE96 | East Porphyry | **Modeled** | *1.00* | 121.00 | 120.00 | 1.05 | 0.14 | | 144.42 |
| | | *incl. >1.0%Cu* | 1.00 | 15.00 | 14.00 | 1.76 | 0.13 | | 97.00 |
| | | **>0.3ppmAu** | 15.00 | 21.00 | 6.00 | 0.82 | 0.49 | | 57.00 |
| | | *incl. >1.0%Cu* | 33.00 | 49.00 | 16.00 | 1.43 | 0.10 | | 135.38 |
| | | *incl. >1.0%Cu* | 83.00 | 115.00 | 32.00 | 1.26 | 0.15 | | 141.69 |
| 003BE96 | Outer BEP | **Modeled** | 0.00 | 30.00 | 30.00 | 0.26 | 0.07 | | 62.73 |
| 005BE96 | Skarn | **Modeled** | 0.00 | 10.00 | 10.00 | 0.37 | 0.05 | | 3.00 |
| 008BE96 | Outer BEP | **Modeled** | 0.00 | 120.30 | 120.30 | 0.27 | 0.07 | | 84.95 |
| 009BE96 | East Porphyry | **Modeled** | 8.35 | 30.00 | 21.65 | 0.31 | 0.17 | | 51.93 |
| 011BE96 | Not Modelled | **>0.3ppmAu** | 56.00 | 62.00 | 6.00 | 0.38 | 0.47 | | 1.33 |
| | | **>0.3%Cu** | 82.00 | 88.00 | 6.00 | 0.54 | 0.35 | | 3.33 |
| 012BE96 | Not Modelled | **>0.3ppmAu** | 112.00 | 120.40 | 8.40 | 0.07 | 0.32 | | 11.29 |
| 013BE96 | Outer BWP | **Modeled** | 102.00 | 120.40 | 18.40 | 0.08 | 0.08 | | 28.61 |
| 014BE96 | Outer BWP | **Modeled** | 110.00 | 121.00 | 11.00 | 0.01 | 0.06 | | 83.00 |
| 015BE96 | West Porphyry | **Modeled** | 0.00 | 120.20 | 120.20 | 0.03 | 0.07 | | 48.10 |
| 016BE96 | Outer BWP | **Modeled** | 88.00 | 104.00 | 16.00 | 0.20 | 0.12 | | 117.00 |
| 016BE96 | West Porphyry | **Modeled** | 104.00 | 120.20 | 16.20 | 0.37 | 0.09 | | 115.09 |
| 017BE96 | West Porphyry | **Modeled** | 108.00 | 120.20 | 12.20 | 0.66 | 0.08 | | 63.36 |
| 018BE96 | West Porphyry | **Modeled** | 54.60 | 120.80 | 66.20 | 0.69 | 0.06 | | 143.05 |
| | | *incl. >1.0%Cu* | 80.00 | 86.00 | 6.00 | 1.19 | 0.10 | | 163.67 |
| 019BE96 | Not Modelled | **>0.3%Cu** | 96.00 | 106.00 | 10.00 | 1.06 | 0.42 | | 25.20 |
| | | *incl. >1.0%Cu* | 98.00 | 104.00 | 6.00 | 1.30 | 0.47 | | 23.33 |
| | | **>0.3ppmAu** | 98.00 | 106.00 | 8.00 | 1.16 | 0.47 | | 26.25 |
| 023BE97 | Outer BEP | **Modeled** | 0.00 | 60.00 | 60.00 | 0.03 | 0.06 | | 0.50 |
| 101BE97 | Not Modelled | **>0.3%Cu** | 6.00 | 24.00 | 18.00 | 0.41 | 0.22 | | 499.56 |
| 101BE97 | Outer BWP | **Modeled** | 120.00 | 162.00 | 42.00 | 0.14 | 0.08 | | 20.50 |
| | | **Modeled** | 190.00 | 358.00 | 168.00 | 0.26 | 0.12 | | 66.79 |
| 101BE97 | West Porphyry | **Modeled** | 162.00 | 190.00 | 28.00 | 0.38 | 0.17 | | 59.86 |

| Criteria | Explanation |
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| | |

| Hole | Resource Domain | Intercept | From | To | Interval | Cu(%) | Au(ppm) | Ag(ppm) | Mo(ppm) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BC001-01 | East Porphyry | **Modeled** | 2.50 | 150.00 | 147.50 | 1.16 | 0.19 | | 124.17 |
| | | *incl. >1.0%Cu* | 2.50 | 56.50 | 54.00 | 1.44 | 0.17 | | 125.53 |
| | | **>0.3ppmAu** | 79.50 | 85.50 | 6.00 | 0.86 | 0.49 | | 43.00 |
| | | *incl. >1.0%Cu* | 91.50 | 103.00 | 11.50 | 1.27 | 0.08 | | 196.78 |
| | | *incl. >1.0%Cu* | 116.50 | 150.00 | 33.50 | 1.14 | 0.21 | | 104.51 |
| BC001-02 | East Porphyry | **Modeled** | 2.50 | 150.00 | 147.50 | 1.32 | 0.25 | 2.05 | 145.17 |
| | | *incl. >1.0%Cu* | 9.50 | 107.00 | 97.50 | 1.52 | 0.22 | 2.00 | 164.93 |
| | | **>0.3ppmAu** | 71.00 | 77.00 | 6.00 | 1.43 | 0.35 | 1.70 | 69.00 |
| | | **>0.3ppmAu** | 104.00 | 150.00 | 46.00 | 1.02 | 0.35 | 2.13 | 102.48 |
| | | *incl. >1.0%Cu* | 122.00 | 131.80 | 9.80 | 1.11 | 0.41 | 1.30 | 90.59 |
| | | *incl. >1.0%Cu* | 142.50 | 150.00 | 7.50 | 1.11 | 0.36 | 3.60 | 36.00 |
| BC001-03 | East Porphyry | **Modeled** | 3.00 | 12.00 | 9.00 | 0.05 | 0.05 | 0.30 | 12.67 |
| | | **Modeled** | 110.00 | 150.00 | 40.00 | 0.41 | 0.18 | 0.77 | 49.94 |
| BC001-04 | East Porphyry | **Modeled** | 2.70 | 150.30 | 147.60 | 0.92 | 0.26 | 4.80 | 78.19 |
| | | *incl. >1.0%Cu* | 21.40 | 47.00 | 25.60 | 1.83 | 0.46 | 6.92 | 110.52 |
| BC002-01 | East Porphyry | **Modeled** | 70.50 | 150.00 | 79.50 | 0.60 | 0.22 | 0.62 | 51.65 |
| | | **>0.3ppmAu** | 82.50 | 91.50 | 9.00 | 0.41 | 0.41 | | 40.67 |
| | | **>0.3ppmAu** | 102.00 | 108.00 | 6.00 | 0.54 | 0.34 | 0.60 | 29.50 |
| BC003-01 | East Porphyry | **Modeled** | 11.50 | 50.50 | 39.00 | 0.37 | 0.38 | 1.35 | 56.31 |
| | | **>0.3ppmAu** | 38.50 | 44.50 | 6.00 | 0.37 | 1.14 | | 31.50 |
| BC004-01 | Outer BEP | **Modeled** | 42.00 | 150.00 | 108.00 | 0.30 | 0.07 | 0.50 | 216.09 |
| BC004-01 | East Porphyry | **Modeled** | 9.00 | 42.00 | 33.00 | 0.49 | 0.03 | 0.77 | 280.91 |
| BC004-02 | East Porphyry | **Modeled** | 9.20 | 134.50 | 125.30 | 0.54 | 0.10 | 1.16 | 168.72 |
| BC004-03 | East Porphyry | **Modeled** | 10.50 | 150.50 | 140.00 | 0.94 | 0.08 | 2.03 | 137.24 |
| | | *incl. >1.0%Cu* | 13.00 | 22.00 | 9.00 | 1.67 | 0.06 | | 132.67 |
| | | *incl. >1.0%Cu* | 108.00 | 150.50 | 42.50 | 1.20 | 0.13 | 3.93 | 144.81 |
| BC005-01 | Outer BWP | **Modeled** | 83.00 | 437.00 | 354.00 | 0.22 | 0.12 | 0.67 | 42.99 |
| BC005-01 | West Porphyry | **Modeled** | 437.00 | 732.00 | 295.00 | 0.51 | 0.25 | 1.27 | 96.40 |
| | | **>0.3ppmAu** | 501.00 | 540.00 | 39.00 | 0.60 | 0.36 | 0.70 | 34.69 |
| | | **>0.3ppmAu** | 549.00 | 579.00 | 30.00 | 0.64 | 0.38 | 0.85 | 67.80 |
| | | **>0.3ppmAu** | 603.00 | 630.00 | 27.00 | 0.68 | 0.46 | 1.25 | 78.44 |
| | | **Modeled** | 819.00 | 889.20 | 70.20 | 0.38 | 0.13 | 0.50 | 163.32 |
| BC005-02 | Outer BWP | **Modeled** | 85.00 | 376.00 | 291.00 | 0.24 | 0.09 | 1.97 | 43.98 |
| | | **>0.3ppmAu** | 178.00 | 184.00 | 6.00 | 0.19 | 0.48 | 1.30 | 24.00 |
| | | *incl. >1.0%Cu* | 277.00 | 286.00 | 9.00 | 2.50 | 0.08 | 11.33 | 34.33 |
| BC005-02 | West Porphyry | **Modeled** | 376.00 | 692.20 | 316.20 | 0.43 | 0.19 | 1.28 | 62.25 |
| | | **>0.3ppmAu** | 424.00 | 430.00 | 6.00 | 0.37 | 0.39 | 0.70 | 52.50 |
| | | *incl. >1.0%Cu* | 466.00 | 472.00 | 6.00 | 1.36 | 0.09 | 7.00 | 46.50 |
| | | **>0.3ppmAu** | 525.00 | 531.00 | 6.00 | 0.54 | 0.34 | | 65.00 |
| | | **>0.3ppmAu** | 669.00 | 689.50 | 20.50 | 0.61 | 0.38 | 0.90 | 49.73 |
| BC005-03 | Outer BWP | **Modeled** | 86.00 | 107.00 | 21.00 | 0.22 | 0.10 | 4.57 | 127.14 |
| | | **Modeled** | 155.00 | 167.00 | 12.00 | 0.25 | 0.05 | 0.30 | 77.25 |
| | | **Modeled** | 227.00 | 519.40 | 292.40 | 0.23 | 0.07 | 0.79 | 36.69 |
| BC005-03 | West Porphyry | **Modeled** | 107.00 | 155.00 | 48.00 | 0.49 | 0.08 | 0.57 | 110.56 |
| | | **Modeled** | 167.00 | 227.00 | 60.00 | 0.37 | 0.09 | 0.48 | 123.85 |
| | | **Modeled** | 519.40 | 687.00 | 167.60 | 0.37 | 0.12 | 0.75 | 141.97 |
| | | **Modeled** | 801.00 | 901.00 | 100.00 | 0.34 | 0.06 | 0.87 | 327.98 |
| BC005-04 | Not Modelled | **>0.3ppmAu** | 39.00 | 45.00 | 6.00 | 0.03 | 0.46 | | 205.00 |
| BC005-04 | Outer BWP | **Modeled** | 99.00 | 168.00 | 69.00 | 0.07 | 0.12 | 3.14 | 108.96 |
| | | **Modeled** | 189.00 | 213.00 | 24.00 | 0.15 | 0.03 | 0.90 | 34.25 |
| BC005-04 | West Porphyry | **Modeled** | 168.00 | 189.00 | 21.00 | 0.59 | 0.05 | 0.65 | 76.86 |
| | | **Modeled** | 213.00 | 616.00 | 403.00 | 0.51 | 0.07 | 1.14 | 237.45 |
| | | *incl. >1.0%Cu* | 355.00 | 364.00 | 9.00 | 1.31 | 0.09 | 2.20 | 486.67 |
| BC005-05 | Not Modelled | **>0.3ppmAu** | 533.00 | 539.00 | 6.00 | 0.13 | 1.11 | | 48.00 |
| BC005-05 | Outer BWP | **Modeled** | 87.00 | 121.00 | 34.00 | 0.09 | 0.08 | 0.25 | 15.18 |
| BC005-05 | West Porphyry | **Modeled** | 121.00 | 416.00 | 295.00 | 0.38 | 0.10 | 0.56 | 64.56 |
| | | **>0.3ppmAu** | 171.50 | 199.00 | 27.50 | 0.75 | 0.43 | 1.20 | 88.93 |

| Criteria | Explanation |
|---|---|

| Hole | Resource Domain | Intercept | From | To | Interval | Cu(%) | Au(ppm) | Ag(ppm) | Mo(ppm) |
|---|---|---|---|---|---|---|---|---|---|
| BC006-01 | Outer BEP | **Modeled** | 33.00 | 128.50 | 95.50 | 0.13 | 0.04 | 2.54 | 26.25 |
| BC006-01 | East Porphyry | **Modeled** | 128.50 | 150.00 | 21.50 | 0.37 | 0.06 | 0.30 | 142.84 |
| BC007-01 | Skarn | **Modeled** | 48.00 | 96.00 | 48.00 | 1.63 | 0.88 | 15.52 | 4.84 |
| | | *incl. >1.0%Cu* | 48.00 | 81.00 | 33.00 | 2.31 | 1.23 | 18.00 | 5.73 |
| | | **>0.3ppmAu** | 51.00 | 78.00 | 27.00 | 2.55 | 1.46 | 19.11 | 4.78 |
| | | *incl. >1.0ppmAu* | 57.00 | 72.00 | 15.00 | 2.76 | 2.16 | 22.80 | 3.60 |
| BC007-02 | Skarn | **Modeled** | 54.00 | 63.00 | 9.00 | 1.38 | 0.42 | 6.50 | 1.00 |
| | | *incl. >1.0%Cu* | 54.00 | 60.00 | 6.00 | 1.68 | 0.50 | 6.50 | 1.25 |
| | | **>0.3ppmAu** | 54.00 | 60.00 | 6.00 | 1.68 | 0.50 | 6.50 | 1.25 |
| | | **Modeled** | 72.00 | 150.00 | 78.00 | 0.41 | 0.09 | 6.39 | 6.03 |
| | | *incl. >1.0%Cu* | 84.00 | 96.00 | 12.00 | 1.30 | 0.20 | 11.50 | 6.50 |
| BC007-03 | Skarn | **Modeled** | 51.80 | 108.00 | 56.20 | 0.95 | 0.20 | 11.28 | 4.04 |
| | | *incl. >1.0%Cu* | 55.00 | 69.50 | 14.50 | 2.42 | 0.28 | 15.14 | 3.66 |
| BC008-01 | Skarn | **Modeled** | 9.00 | 30.00 | 21.00 | 0.62 | 1.02 | 5.78 | 2.66 |
| | | **>0.3ppmAu** | 12.00 | 24.00 | 12.00 | 0.82 | 1.74 | 6.50 | 2.78 |
| | | *incl. >1.0ppmAu* | 17.60 | 24.00 | 6.40 | 0.77 | 2.92 | 6.53 | 3.00 |
| | | **Modeled** | 75.00 | 111.00 | 36.00 | 0.50 | 0.08 | 5.36 | 15.76 |
| BC008-02 | Skarn | **Modeled** | 11.30 | 36.00 | 24.70 | 0.76 | 0.24 | 11.34 | 5.15 |
| | | *incl. >1.0%Cu* | 11.30 | 24.00 | 12.70 | 1.11 | 0.27 | 12.47 | 4.14 |
| BC009-01 | Outer BEP | **Modeled** | 87.00 | 105.00 | 18.00 | 0.45 | 0.03 | 3.95 | 93.33 |
| BC009-01 | East Porphyry | **Modeled** | 105.00 | 150.00 | 45.00 | 0.40 | 0.09 | 2.72 | 83.07 |
| BC010-01 | East Porphyry | **Modeled** | 11.00 | 150.00 | 139.00 | 0.69 | 0.11 | 1.05 | 75.40 |
| | | *incl. >1.0%Cu* | 56.00 | 75.00 | 19.00 | 1.28 | 0.29 | 1.70 | 26.96 |
| | | **>0.3ppmAu** | 59.00 | 65.20 | 6.20 | 1.34 | 0.39 | | 15.19 |
| BC010-02 | East Porphyry | **Modeled** | 7.50 | 150.00 | 142.50 | 0.61 | 0.08 | 0.77 | 110.91 |
| BC010-03 | East Porphyry | **Modeled** | 7.50 | 150.00 | 142.50 | 0.49 | 0.11 | 1.00 | 37.67 |
| BC010-04 | East Porphyry | **Modeled** | 3.00 | 150.00 | 147.00 | 0.47 | 0.07 | 0.72 | 121.63 |
| BC011-01 | East Porphyry | **Modeled** | 134.00 | 326.50 | 192.50 | 0.60 | 0.17 | 9.18 | 83.52 |
| | | **>0.3ppmAu** | 268.00 | 274.00 | 6.00 | 0.72 | 0.41 | | 96.50 |
| | | *incl. >1.0%Cu* | 274.00 | 280.00 | 6.00 | 1.10 | 0.22 | 4.05 | 39.00 |
| BC011-02 | East Porphyry | **Modeled** | 109.00 | 410.00 | 301.00 | 0.46 | 0.12 | 1.64 | 73.75 |
| | | **Modeled** | 479.00 | 545.00 | 66.00 | 0.60 | 0.08 | 2.78 | 176.73 |
| | | *incl. >1.0%Cu* | 518.00 | 524.00 | 6.00 | 1.06 | 0.14 | | 79.50 |
| | | **Modeled** | 614.00 | 700.00 | 86.00 | 0.71 | 0.17 | 8.71 | 250.88 |
| BC011-03 | East Porphyry | **Modeled** | 84.00 | 259.20 | 175.20 | 0.50 | 0.14 | 4.29 | 68.03 |
| | | **>0.3ppmAu** | 109.00 | 115.00 | 6.00 | 0.69 | 0.33 | | 182.50 |
| | | **>0.3ppmAu** | 160.00 | 172.00 | 12.00 | 0.55 | 0.28 | 13.75 | 65.25 |
| BC011-03A | East Porphyry | **Modeled** | 259.20 | 350.00 | 90.80 | 0.72 | 0.09 | 1.30 | 69.55 |
| | | **Modeled** | 398.00 | 404.00 | 6.00 | 1.27 | 0.19 | | 189.00 |
| | | *incl. >1.0%Cu* | 398.00 | 404.00 | 6.00 | 1.27 | 0.19 | | 189.00 |
| BC013-01 | Outer BEP | **Modeled** | 20.00 | 150.00 | 130.00 | 0.31 | 0.03 | 2.13 | 194.80 |
| BC013-02 | Outer BEP | **Modeled** | 10.00 | 78.00 | 68.00 | 0.21 | 0.03 | 1.00 | 83.65 |
| | | **Modeled** | 114.00 | 143.90 | 29.90 | 0.17 | 0.04 | 0.90 | 109.73 |
| BC013-02 | East Porphyry | **Modeled** | 78.00 | 114.00 | 36.00 | 0.44 | 0.08 | 6.67 | 166.17 |
| BC013-03 | Outer BEP | **Modeled** | 7.00 | 150.00 | 143.00 | 0.23 | 0.08 | 1.52 | 68.11 |
| | | **>0.3ppmAu** | 131.00 | 140.00 | 9.00 | 0.43 | 0.45 | 2.70 | 47.33 |
| BC014-01 | Not Modelled | **>0.3%Cu** | 314.00 | 320.00 | 6.00 | 0.34 | 0.04 | | 10.00 |
| | | **>0.3%Cu** | 488.00 | 497.00 | 9.00 | 0.46 | 0.02 | | 9.00 |
| | | **>0.3ppmAu** | 536.00 | 542.00 | 6.00 | 0.09 | 0.46 | | 65.00 |
| BC014-02 | West Porphyry | **Modeled** | 112.00 | 125.00 | 13.00 | 0.04 | 0.04 | | 6.62 |
| BC014-03 | West Porphyry | **Modeled** | 99.20 | 126.00 | 26.80 | 0.34 | 0.09 | 5.01 | 46.78 |
| | | **Modeled** | 165.00 | 177.00 | 12.00 | 0.40 | 0.08 | 5.50 | 23.75 |
| | | **Modeled** | 217.00 | 495.00 | 278.00 | 0.28 | 0.08 | 1.45 | 298.71 |
| BC015-01 | East Porphyry | **Modeled** | 28.60 | 150.00 | 121.40 | 0.72 | 0.19 | 1.85 | 61.17 |
| | | *incl. >1.0%Cu* | 65.00 | 74.00 | 9.00 | 1.28 | 0.25 | 1.90 | 43.00 |
| | | *incl. >1.0%Cu* | 89.00 | 95.00 | 6.00 | 1.22 | 0.28 | | 77.00 |
| BC015-02 | East Porphyry | **Modeled** | 29.80 | 150.00 | 120.20 | 0.35 | 0.13 | 1.88 | 120.11 |

| Criteria | Explanation |
|---|---|
| | (table below) |

| Hole | Resource Domain | Intercept | From | To | Interval | Cu(%) | Au(ppm) | Ag(ppm) | Mo(ppm) |
|---|---|---|---|---|---|---|---|---|---|
| BC015-03 | East Porphyry | **Modeled** | 25.80 | 150.00 | 124.20 | 0.77 | 0.20 | 1.45 | 74.14 |
| | | **>0.3ppmAu** | 29.00 | 35.00 | 6.00 | 0.71 | 0.30 | | 93.50 |
| | | *incl. >1.0%Cu* | 101.00 | 107.00 | 6.00 | 1.05 | 0.25 | 5.00 | 191.50 |
| | | *incl. >1.0%Cu* | 119.00 | 150.00 | 31.00 | 1.16 | 0.26 | 1.50 | 61.24 |
| | | **>0.3ppmAu** | 128.00 | 140.00 | 12.00 | 1.09 | 0.42 | | 71.25 |
| BC016-01 | East Porphyry | **Modeled** | 9.40 | 150.00 | 140.60 | 0.49 | 0.07 | 2.22 | 136.23 |
| BC016-02 | East Porphyry | **Modeled** | 9.60 | 150.00 | 140.40 | 0.70 | 0.10 | 0.84 | 54.27 |
| | | *incl. >1.0%Cu* | 28.00 | 37.00 | 9.00 | 1.13 | 0.13 | | 103.67 |
| BC016-03 | East Porphyry | **Modeled** | 8.00 | 150.00 | 142.00 | 0.77 | 0.10 | 1.47 | 92.73 |
| | | *incl. >1.0%Cu* | 68.00 | 83.00 | 15.00 | 1.16 | 0.09 | 1.05 | 81.20 |
| BC017-01 | Skarn | **Modeled** | 15.00 | 30.00 | 15.00 | 0.33 | 0.13 | 4.66 | 8.27 |
| BC017-02 | Skarn | **Modeled** | 26.90 | 86.20 | 59.30 | 1.41 | 0.20 | 15.56 | 6.33 |
| | | *incl. >1.0%Cu* | 30.00 | 36.00 | 6.00 | 1.13 | 0.15 | 7.50 | 4.50 |
| | | *incl. >1.0%Cu* | 45.00 | 86.20 | 41.20 | 1.73 | 0.24 | 17.42 | 6.61 |
| BC017-03 | Skarn | **Modeled** | 15.10 | 123.00 | 107.90 | 0.84 | 0.76 | 7.27 | 5.70 |
| | | **>0.3ppmAu** | 24.00 | 123.00 | 99.00 | 0.83 | 0.81 | 5.77 | 5.60 |
| | | *incl. >1.0%Cu* | 39.00 | 54.00 | 15.00 | 1.15 | 0.94 | 6.00 | 5.60 |
| | | *incl. >1.0%Cu* | 86.60 | 119.80 | 33.20 | 1.21 | 1.29 | 7.72 | 4.87 |
| | | *incl. >1.0ppmAu* | 93.00 | 102.00 | 9.00 | 1.36 | 2.58 | 5.80 | 7.00 |
| BC018-01 | Not Modelled | **>0.3ppmAu** | 87.50 | 97.30 | 9.80 | 0.14 | 0.46 | 7.00 | 8.28 |
| BC018-01 | Skarn | **Modeled** | 31.00 | 87.50 | 56.50 | 0.40 | 0.15 | 1.07 | 67.86 |
| | | *incl. >1.0%Cu* | 75.00 | 84.00 | 9.00 | 1.27 | 0.37 | | 9.67 |
| | | **>0.3ppmAu** | 78.00 | 87.50 | 9.50 | 0.96 | 0.43 | | 6.79 |
| BC018-02 | Skarn | **Modeled** | 141.00 | 150.00 | 9.00 | 0.38 | 0.17 | 5.80 | 25.33 |
| BC018-03 | Skarn | **Modeled** | 37.40 | 102.00 | 64.60 | 0.32 | 0.16 | 6.75 | 43.52 |
| | | *incl. >1.0%Cu* | 75.00 | 81.00 | 6.00 | 1.36 | 0.56 | 9.00 | 9.50 |
| | | **>0.3ppmAu** | 75.00 | 81.00 | 6.00 | 1.36 | 0.56 | 9.00 | 9.50 |
| BC020-01 | Outer BEP | **Modeled** | 13.50 | 98.00 | 84.50 | 0.17 | 0.18 | 12.71 | 41.57 |
| | | **>0.3ppmAu** | 26.00 | 41.00 | 15.00 | 0.06 | 0.63 | 17.80 | 58.00 |
| | | **Modeled** | 144.00 | 150.00 | 6.00 | 0.15 | 0.11 | | 42.00 |
| BC020-01 | East Porphyry | **Modeled** | 98.00 | 144.00 | 46.00 | 0.30 | 0.07 | 0.98 | 92.11 |
| BC020-02A | Outer BEP | **Modeled** | 15.30 | 27.00 | 11.70 | 0.05 | 0.08 | 0.20 | 7.46 |
| BC020-03 | Not Modelled | **>0.3%Cu** | 133.00 | 150.00 | 17.00 | 0.74 | 0.17 | 0.60 | 33.29 |
| BC020-03 | Outer BEP | **Modeled** | 13.30 | 94.00 | 80.70 | 0.23 | 0.07 | 0.84 | 30.64 |
| BC021-01 | Outer BEP | **Modeled** | 10.00 | 21.20 | 11.20 | 0.19 | 0.27 | 0.20 | 20.40 |
| BC021-01 | East Porphyry | **Modeled** | 21.20 | 150.00 | 128.80 | 0.54 | 0.07 | 1.20 | 80.01 |
| BC021-02 | Not Modelled | **>0.3%Cu** | 46.50 | 65.00 | 18.50 | 0.35 | 0.10 | 1.50 | 88.16 |
| | | **>0.3%Cu** | 74.00 | 80.00 | 6.00 | 0.51 | 0.19 | 2.90 | 6.50 |
| | | **>0.3%Cu** | 131.00 | 137.00 | 6.00 | 0.39 | 0.05 | 13.00 | 8.50 |
| BC021-02 | Outer BEP | **Modeled** | 8.20 | 32.00 | 23.80 | 0.09 | 0.02 | 0.41 | 7.53 |
| BC025-01 | Not Modelled | **>0.3%Cu** | 63.50 | 69.50 | 6.00 | 4.00 | 0.16 | 4.20 | 35.50 |
| BC025-02 | Not Modelled | **>0.3%Cu** | 67.00 | 97.00 | 30.00 | 0.47 | 0.02 | 0.60 | 54.90 |
| | | **>0.3ppmAu** | 428.00 | 434.00 | 6.00 | 0.07 | 1.64 | | 41.00 |
| BC025-03 | Not Modelled | **>0.3%Cu** | 57.00 | 84.00 | 27.00 | 0.55 | 0.10 | 1.10 | 83.33 |
| BC026-01 | Outer BEP | **Modeled** | 3.00 | 150.00 | 147.00 | 0.24 | 0.07 | 2.53 | 4.34 |
| BC026-02 | Outer BEP | **Modeled** | 5.80 | 150.00 | 144.20 | 0.14 | 0.03 | 4.29 | 8.19 |
| BC027-02 | Not Modelled | **>0.3ppmAu** | 63.00 | 69.00 | 6.00 | 0.13 | 0.38 | 9.00 | 4.50 |
| BC028-01 | West Porphyry | **Modeled** | 135.00 | 150.00 | 15.00 | 0.33 | 0.03 | 0.30 | 129.40 |
| BC028-02 | Not Modelled | **>0.3%Cu** | 119.00 | 133.00 | 14.00 | 1.27 | 0.29 | 61.29 | 87.21 |
| | | *incl. >1.0%Cu* | 122.00 | 130.50 | 8.50 | 1.66 | 0.31 | 67.06 | 101.94 |
| | | **>0.3ppmAu** | 125.00 | 140.80 | 15.80 | 0.82 | 0.48 | 84.02 | 93.49 |
| BC028-03 | Not Modelled | **>0.3%Cu** | 108.00 | 114.00 | 6.00 | 0.40 | 0.01 | | 14.50 |
| BC029-01 | Not Modelled | **>0.3%Cu** | 29.00 | 35.00 | 6.00 | 0.36 | 0.07 | | 76.50 |
| BC029-01 | Outer BEP | **Modeled** | 123.00 | 292.80 | 169.80 | 0.38 | 0.16 | 1.32 | 171.54 |
| | | *incl. >1.0%Cu* | 216.00 | 228.00 | 12.00 | 1.21 | 0.13 | 1.50 | 419.00 |
| BC029-01A | Not Modelled | **>0.3%Cu** | 614.00 | 620.00 | 6.00 | 0.32 | 0.09 | | 128.00 |
| | | **>0.3%Cu** | 651.00 | 657.00 | 6.00 | 0.36 | 0.08 | | 104.50 |

| Criteria | Explanation |
|---|---|

| Hole | Resource Domain | Intercept | From | To | Interval | Cu(%) | Au(ppm) | Ag(ppm) | Mo(ppm) |
|---|---|---|---|---|---|---|---|---|---|
| BC029-01A | Outer BEP | **Modeled** | 292.80 | 416.00 | 123.20 | 0.40 | 0.09 | 1.40 | 121.05 |
| | | *incl. >1.0%Cu* | 308.00 | 314.00 | 6.00 | 1.25 | 0.29 | 2.60 | 172.00 |
| BC029-01A | East Porphyry | **Modeled** | 416.00 | 577.50 | 161.50 | 0.49 | 0.12 | 3.18 | 198.76 |
| | | **>0.3ppmAu** | 504.00 | 514.20 | 10.20 | 1.28 | 0.44 | 8.72 | 157.08 |
| | | *incl. >1.0%Cu* | 507.50 | 514.20 | 6.70 | 1.57 | 0.48 | 9.09 | 209.36 |
| | | **Modeled** | 846.00 | 869.00 | 23.00 | 0.36 | 0.06 | 2.19 | 201.76 |
| BC029-02 | Not Modelled | **>0.3%Cu** | 142.00 | 148.00 | 6.00 | 0.35 | 0.04 | 1.00 | 130.00 |
| | | **>0.3%Cu** | 495.00 | 501.00 | 6.00 | 0.63 | 0.03 | | 12.50 |
| | | **>0.3%Cu** | 609.00 | 615.00 | 6.00 | 0.71 | 0.05 | 1.90 | 25.00 |
| BC032-01 | Not Modelled | **>0.3%Cu** | 9.00 | 18.00 | 9.00 | 0.47 | 0.00 | | 1.17 |
| | | **>0.3%Cu** | 30.00 | 36.00 | 6.00 | 0.53 | 0.00 | | 2.25 |
| BEU0600-02 | East Porphyry | **Modeled** | 39.50 | 72.50 | 33.00 | 0.05 | 0.05 | 0.91 | 7.32 |
| | | **Modeled** | 169.00 | 197.00 | 28.00 | 0.38 | 0.11 | 1.34 | 44.95 |
| | | **Modeled** | 231.50 | 446.10 | 214.60 | 0.45 | 0.09 | 1.24 | 70.09 |
| BEU0600-03 | East Porphyry | **Modeled** | 158.00 | 232.40 | 74.40 | 0.21 | 0.17 | 1.10 | 69.16 |
| BEU0700-01 | Skarn | **Modeled** | 96.00 | 142.00 | 46.00 | 0.30 | 0.11 | 3.48 | 9.76 |
| BEU0700-02 | East Porphyry | **Modeled** | 41.00 | 270.50 | 229.50 | 0.45 | 0.11 | 1.20 | 73.68 |
| | | **>0.3ppmAu** | 126.00 | 132.00 | 6.00 | 0.72 | 0.33 | 1.15 | 57.50 |
| BEU0700-03 | East Porphyry | **Modeled** | 74.50 | 459.20 | 384.70 | 0.67 | 0.21 | 4.42 | 99.68 |
| | | **>0.3ppmAu** | 95.50 | 117.00 | 21.50 | 0.33 | 1.27 | 32.69 | 34.20 |
| | | *incl. >1.0ppmAu* | 101.50 | 107.50 | 6.00 | 0.52 | 3.69 | 101.70 | 28.00 |
| | | *incl. >1.0%Cu* | 164.00 | 179.00 | 15.00 | 1.08 | 0.12 | 2.78 | 97.60 |
| | | *incl. >1.0%Cu* | 354.00 | 366.00 | 12.00 | 1.05 | 0.09 | 4.45 | 171.25 |
| | | *incl. >1.0%Cu* | 438.00 | 444.00 | 6.00 | 1.33 | 0.29 | 3.20 | 128.00 |
| BEU0700-04 | East Porphyry | **Modeled** | 136.00 | 360.00 | 224.00 | 0.73 | 0.12 | 3.58 | 73.86 |
| | | *incl. >1.0%Cu* | 257.00 | 263.00 | 6.00 | 1.18 | 0.09 | 2.60 | 196.00 |
| | | *incl. >1.0%Cu* | 296.00 | 311.00 | 15.00 | 1.01 | 0.11 | 2.88 | 78.60 |
| | | **Modeled** | 375.00 | 420.00 | 45.00 | 0.58 | 0.07 | 1.69 | 86.73 |
| | | **Modeled** | 444.00 | 461.70 | 17.70 | 0.47 | 0.05 | 2.82 | 69.98 |
| BEU0700-05 | East Porphyry | **Modeled** | 136.00 | 409.00 | 273.00 | 0.57 | 0.12 | 1.27 | 45.48 |
| BEU0700-07 | East Porphyry | **Modeled** | 143.55 | 347.00 | 203.45 | 0.44 | 0.15 | 2.45 | 74.38 |
| | | **Modeled** | 383.00 | 407.20 | 24.20 | 0.45 | 0.06 | 1.64 | 55.26 |
| BEU0800-01 | East Porphyry | **Modeled** | 3.25 | 220.50 | 217.25 | 1.18 | 0.20 | 2.49 | 96.47 |
| | | *incl. >1.0%Cu* | 6.35 | 89.00 | 82.65 | 1.45 | 0.16 | 2.00 | 92.88 |
| | | *incl. >1.0%Cu* | 103.00 | 111.00 | 8.00 | 1.35 | 0.18 | 16.66 | 64.56 |
| | | **>0.3ppmAu** | 111.00 | 124.75 | 13.75 | 0.79 | 0.35 | 1.19 | 108.85 |
| | | *incl. >1.0%Cu* | 139.85 | 170.50 | 30.65 | 1.37 | 0.30 | 2.19 | 42.08 |
| | | **>0.3ppmAu** | 152.60 | 168.50 | 15.90 | 1.43 | 0.41 | 2.48 | 29.93 |
| | | *incl. >1.0%Cu* | 176.50 | 196.30 | 19.80 | 1.11 | 0.20 | 2.14 | 104.38 |
| | | *incl. >1.0%Cu* | 200.90 | 207.30 | 6.40 | 1.20 | 0.25 | 1.83 | 250.84 |
| BEU0800-02 | East Porphyry | **Modeled** | 2.80 | 349.90 | 347.10 | 1.06 | 0.18 | 1.72 | 132.54 |
| | | *incl. >1.0%Cu* | 10.70 | 87.00 | 76.30 | 1.48 | 0.15 | 1.68 | 88.92 |
| | | *incl. >1.0%Cu* | 101.00 | 107.00 | 6.00 | 1.32 | 0.17 | 1.57 | 221.00 |
| | | **>0.3ppmAu** | 121.00 | 148.80 | 27.80 | 0.97 | 0.45 | 1.58 | 114.84 |
| | | *incl. >1.0%Cu* | 147.00 | 168.00 | 21.00 | 1.10 | 0.21 | 1.98 | 161.70 |
| | | *incl. >1.0%Cu* | 182.00 | 215.85 | 33.85 | 1.18 | 0.16 | 2.16 | 134.23 |
| | | *incl. >1.0%Cu* | 229.00 | 255.00 | 26.00 | 1.35 | 0.23 | 2.42 | 189.74 |
| | | *incl. >1.0%Cu* | 299.00 | 305.00 | 6.00 | 1.36 | 0.11 | 2.33 | 76.33 |
| BEU0800-03 | East Porphyry | **Modeled** | 5.00 | 335.90 | 330.90 | 0.79 | 0.15 | 1.95 | 106.06 |
| | | *incl. >1.0%Cu* | 20.00 | 115.00 | 95.00 | 1.46 | 0.22 | 3.02 | 133.80 |
| | | **>0.3ppmAu** | 110.00 | 117.50 | 7.50 | 1.12 | 0.34 | 1.93 | 115.67 |
| | | *incl. >1.0%Cu* | 221.00 | 227.00 | 6.00 | 1.44 | 0.14 | 2.15 | 145.50 |
| BEU0800-04 | Skarn | **Modeled** | 124.10 | 136.95 | 12.85 | 0.41 | 0.13 | 8.09 | 4.33 |
| | | **Modeled** | 149.60 | 211.50 | 61.90 | 0.80 | 0.28 | 6.14 | 4.20 |
| | | *incl. >1.0%Cu* | 149.60 | 158.60 | 9.00 | 1.91 | 0.21 | 20.37 | 1.33 |
| | | *incl. >1.0%Cu* | 182.60 | 193.50 | 10.90 | 1.39 | 0.84 | 7.10 | 1.58 |
| | | **>0.3ppmAu** | 182.60 | 196.50 | 13.90 | 1.17 | 0.77 | 5.91 | 1.45 |

| Criteria | Explanation |
|---|---|
| | |

| Hole | Resource Domain | Intercept | From | To | Interval | Cu(%) | Au(ppm) | Ag(ppm) | Mo(ppm) |
|---|---|---|---|---|---|---|---|---|---|
| BEU0800-05 | East Porphyry | **Modeled** | 97.00 | 333.00 | 236.00 | 0.59 | 0.17 | 1.32 | 73.11 |
| | | **>0.3ppmAu** | 177.00 | 186.00 | 9.00 | 0.76 | 0.47 | 0.67 | 35.67 |
| | | **Modeled** | 351.00 | 399.00 | 48.00 | 0.73 | 0.06 | 1.69 | 95.64 |
| | | **Modeled** | 459.00 | 525.00 | 66.00 | 0.57 | 0.08 | 1.60 | 73.25 |
| BEU0800-06 | Skarn | **Modeled** | 290.20 | 308.80 | 18.60 | 0.53 | 0.30 | 6.08 | 34.56 |
| BEU0800-07 | Skarn | **Modeled** | 121.00 | 177.50 | 56.50 | 1.39 | 0.38 | 6.84 | 2.35 |
| | | *incl. >1.0%Cu* | 121.00 | 162.50 | 41.50 | 1.78 | 0.43 | 8.02 | 1.82 |
| | | **>0.3ppmAu** | 127.00 | 139.00 | 12.00 | 2.42 | 0.85 | 8.00 | 1.50 |
| BEU0800-08 | East Porphyry | **Modeled** | 94.00 | 227.80 | 133.80 | 0.46 | 0.16 | 1.64 | 45.50 |
| | | **>0.3ppmAu** | 118.00 | 124.00 | 6.00 | 0.45 | 0.34 | 1.15 | 88.50 |
| BEU0800-09 | Outer BEP | **Modeled** | 65.00 | 109.50 | 44.50 | 0.25 | 0.02 | 3.01 | 38.54 |
| BEU0800-09 | East Porphyry | **Modeled** | 109.50 | 448.50 | 339.00 | 0.58 | 0.12 | 1.13 | 111.47 |
| | | *incl. >1.0%Cu* | 274.60 | 301.60 | 27.00 | 1.21 | 0.17 | 2.12 | 87.56 |
| | | *incl. >1.0%Cu* | 316.00 | 322.00 | 6.00 | 1.27 | 0.09 | 1.65 | 114.00 |
| | | *incl. >1.0%Cu* | 367.00 | 373.00 | 6.00 | 1.19 | 0.14 | 2.35 | 134.50 |
| | | **>0.3ppmAu** | 430.00 | 439.00 | 9.00 | 0.86 | 0.46 | 1.33 | 93.00 |
| BEU0800D01 | East Porphyry | **Modeled** | 111.00 | 390.00 | 279.00 | 0.54 | 0.13 | 1.20 | 83.04 |
| | | **Modeled** | 438.00 | 498.00 | 60.00 | 0.57 | 0.07 | 1.87 | 67.13 |
| | | **Modeled** | 503.00 | 526.00 | 23.00 | 0.73 | 0.09 | 2.15 | 287.78 |
| | | **Modeled** | 532.00 | 725.00 | 193.00 | 0.62 | 0.13 | 5.82 | 145.94 |
| | | *incl. >1.0%Cu* | 622.00 | 640.00 | 18.00 | 1.08 | 0.09 | 10.05 | 286.50 |
| BEU0900-01 | East Porphyry | **Modeled** | 5.30 | 379.50 | 374.20 | 0.89 | 0.13 | 2.03 | 117.45 |
| | | *incl. >1.0%Cu* | 8.30 | 17.30 | 9.00 | 1.32 | 0.27 | 1.87 | 57.33 |
| | | **>0.3ppmAu** | 14.30 | 26.30 | 12.00 | 0.94 | 0.43 | 2.17 | 124.00 |
| | | *incl. >1.0%Cu* | 29.30 | 35.30 | 6.00 | 1.36 | 0.29 | 1.50 | 587.00 |
| | | **>0.3ppmAu** | 44.30 | 53.30 | 9.00 | 1.43 | 0.42 | 6.67 | 115.67 |
| | | *incl. >1.0%Cu* | 53.30 | 74.30 | 21.00 | 1.23 | 0.17 | 1.83 | 156.86 |
| | | *incl. >1.0%Cu* | 95.30 | 101.30 | 6.00 | 1.06 | 0.23 | 1.30 | 53.00 |
| | | *incl. >1.0%Cu* | 168.30 | 192.30 | 24.00 | 1.17 | 0.09 | 2.08 | 148.88 |
| | | *incl. >1.0%Cu* | 219.30 | 231.30 | 12.00 | 1.03 | 0.13 | 2.45 | 85.75 |
| | | *incl. >1.0%Cu* | 291.00 | 315.00 | 24.00 | 1.10 | 0.07 | 2.73 | 98.25 |
| | | **Modeled** | 436.20 | 501.00 | 64.80 | 0.55 | 0.11 | 1.64 | 113.45 |
| | | *incl. >1.0%Cu* | 439.00 | 445.00 | 6.00 | 1.13 | 0.07 | 2.35 | 383.50 |
| | | **>0.3ppmAu** | 471.00 | 477.00 | 6.00 | 0.88 | 0.32 | 2.20 | 53.00 |
| | | **Modeled** | 549.00 | 709.00 | 160.00 | 0.75 | 0.19 | 7.07 | 247.77 |
| | | **>0.3ppmAu** | 680.00 | 689.00 | 9.00 | 1.06 | 0.39 | 2.17 | 46.00 |
| | | *incl. >1.0%Cu* | 683.00 | 689.00 | 6.00 | 1.12 | 0.41 | 2.20 | 38.50 |
| BEU0900-02 | Outer BEP | **Modeled** | 179.00 | 274.40 | 95.40 | 0.35 | 0.04 | 0.72 | 262.30 |
| BEU0900-02 | East Porphyry | **Modeled** | 5.30 | 179.00 | 173.70 | 0.78 | 0.08 | 1.47 | 123.84 |
| | | *incl. >1.0%Cu* | 5.30 | 20.00 | 14.70 | 1.62 | 0.16 | 1.77 | 151.55 |
| | | *incl. >1.0%Cu* | 29.00 | 41.00 | 12.00 | 0.96 | 0.09 | 2.65 | 103.00 |
| | | *incl. >1.0%Cu* | 101.00 | 116.00 | 15.00 | 1.10 | 0.05 | 3.60 | 137.00 |
| BEU0900-03 | East Porphyry | **Modeled** | 4.50 | 304.50 | 300.00 | 0.65 | 0.14 | 1.37 | 62.71 |
| | | **>0.3ppmAu** | 7.00 | 33.00 | 26.00 | 0.52 | 0.36 | 1.08 | 172.00 |
| | | **>0.3ppmAu** | 72.00 | 78.00 | 6.00 | 0.91 | 0.34 | 1.55 | 19.00 |
| | | **>0.3ppmAu** | 233.00 | 239.00 | 6.00 | 0.87 | 0.58 | 1.55 | 47.50 |
| | | **Modeled** | 342.50 | 372.00 | 29.50 | 0.60 | 0.04 | 2.06 | 88.35 |
| BEU0900-04 | East Porphyry | **Modeled** | 5.20 | 283.00 | 277.80 | 0.63 | 0.12 | 1.10 | 55.09 |
| | | **>0.3ppmAu** | 67.00 | 73.00 | 6.00 | 0.84 | 0.39 | 1.30 | 12.50 |
| | | *incl. >1.0%Cu* | 274.00 | 280.00 | 6.00 | 1.23 | 0.10 | 3.10 | 43.00 |
| | | **Modeled** | 313.00 | 330.00 | 17.00 | 0.64 | 0.03 | 1.82 | 84.79 |
| BEU0900-05 | Outer BEP | **Modeled** | 284.00 | 309.00 | 25.00 | 0.47 | 0.03 | 3.86 | 137.36 |
| BEU0900-05 | East Porphyry | **Modeled** | 5.50 | 230.00 | 224.50 | 0.71 | 0.14 | 1.29 | 44.03 |
| | | *incl. >1.0%Cu* | 50.00 | 62.00 | 12.00 | 1.33 | 0.41 | 2.22 | 8.50 |
| | | **>0.3ppmAu** | 50.00 | 65.00 | 15.00 | 1.26 | 0.39 | 2.08 | 9.20 |
| BEU1000-01 | Outer BEP | **Modeled** | 13.00 | 101.00 | 88.00 | 0.31 | 0.06 | 1.20 | 111.15 |

| Criteria | Explanation |
|---|---|

| Hole | Resource Domain | Intercept | From | To | Interval | Cu(%) | Au(ppm) | Ag(ppm) | Mo(ppm) |
|---|---|---|---|---|---|---|---|---|---|
| BEU1000-01 | East Porphyry | **Modeled** | 101.00 | 330.50 | 229.50 | 0.60 | 0.06 | 1.88 | 193.80 |
| | | *incl. >1.0%Cu* | 245.00 | 251.00 | 6.00 | 1.11 | 0.19 | 2.35 | 155.00 |
| | | *incl. >1.0%Cu* | 310.00 | 328.00 | 18.00 | 1.31 | 0.06 | 3.07 | 38.17 |
| | | **Modeled** | 348.00 | 410.00 | 62.00 | 0.77 | 0.04 | 5.55 | 76.78 |
| | | *incl. >1.0%Cu* | 395.00 | 401.00 | 6.00 | 1.09 | 0.06 | 26.70 | 129.50 |
| BEU1000-02 | Outer BEP | **Modeled** | 8.00 | 154.00 | 146.00 | 0.25 | 0.04 | 0.94 | 106.40 |
| BEU1000-02 | East Porphyry | **Modeled** | 154.00 | 406.70 | 252.70 | 0.67 | 0.05 | 1.66 | 86.94 |
| | | *incl. >1.0%Cu* | 348.10 | 404.00 | 55.90 | 1.29 | 0.08 | 3.11 | 164.56 |
| BEU1000-03 | Outer BEP | **Modeled** | 5.25 | 219.20 | 213.95 | 0.25 | 0.03 | 1.42 | 188.00 |
| BEU1000-04 | Outer BEP | **Modeled** | 6.50 | 104.00 | 97.50 | 0.29 | 0.07 | 1.49 | 118.96 |
| | | **Modeled** | 227.00 | 230.00 | 3.00 | 0.50 | 0.03 | 0.60 | 165.00 |
| BEU1000-04 | East Porphyry | **Modeled** | 104.00 | 227.00 | 123.00 | 0.34 | 0.02 | 0.65 | 145.87 |
| | | **Modeled** | 230.00 | 337.00 | 107.00 | 0.52 | 0.04 | 1.05 | 405.02 |
| BEU1000-05 | Not Modelled | **>0.3%Cu** | 352.50 | 364.30 | 11.80 | 0.49 | 0.07 | 1.37 | 29.69 |
| BEU1100-01 | Outer BEP | **Modeled** | 9.50 | 24.00 | 14.50 | 0.35 | 0.05 | 0.82 | 30.07 |
| BEU1100-02 | Not Modelled | **>0.3%Cu** | 353.00 | 369.50 | 16.50 | 0.39 | 0.03 | 1.09 | 193.88 |
| BEU1100-02 | Outer BEP | **Modeled** | 4.80 | 239.00 | 234.20 | 0.29 | 0.04 | 1.49 | 37.36 |
| | | *incl. >1.0%Cu* | 50.00 | 62.00 | 12.00 | 1.61 | 0.04 | 7.20 | 46.25 |
| | | *incl. >1.0%Cu* | 98.00 | 104.00 | 6.00 | 1.31 | 0.20 | 7.30 | 35.50 |
| | | **Modeled** | 257.00 | 335.00 | 78.00 | 0.32 | 0.02 | 0.72 | 122.58 |
| BEU1100-02 | East Porphyry | **Modeled** | 239.00 | 257.00 | 18.00 | 1.03 | 0.07 | 1.15 | 258.33 |
| | | *incl. >1.0%Cu* | 251.00 | 257.00 | 6.00 | 2.21 | 0.02 | 1.35 | 366.50 |
| BEU1100-03 | Outer BEP | **Modeled** | 7.50 | 228.00 | 220.50 | 0.15 | 0.02 | 0.78 | 25.54 |
| | | **Modeled** | 300.00 | 330.00 | 30.00 | 0.18 | 0.03 | 0.43 | 41.50 |
| BEU1100-03 | East Porphyry | **Modeled** | 228.00 | 300.00 | 72.00 | 0.44 | 0.06 | 1.65 | 268.38 |
| BEU1700D01 | Not Modelled | **>0.3%Cu** | 1338.00 | 1359.00 | 21.00 | 0.33 | 0.06 | 0.51 | 160.36 |
| BEU1700D01 | East Porphyry | **Modeled** | 102.00 | 387.00 | 285.00 | 0.60 | 0.10 | 0.95 | 167.32 |
| | | **>0.3ppmAu** | 102.00 | 108.00 | 6.00 | 0.50 | 0.36 | 1.65 | 67.50 |
| | | *incl. >1.0%Cu* | 177.00 | 183.00 | 6.00 | 1.22 | 0.08 | 0.75 | 136.50 |
| | | *incl. >1.0%Cu* | 201.00 | 216.00 | 15.00 | 1.15 | 0.08 | 2.04 | 362.00 |
| | | **>0.3ppmAu** | 246.00 | 252.00 | 6.00 | 0.88 | 0.38 | 1.30 | 142.50 |
| | | **Modeled** | 522.00 | 821.00 | 299.00 | 0.43 | 0.17 | 0.67 | 191.75 |
| | | **>0.3ppmAu** | 604.00 | 613.00 | 9.00 | 0.62 | 0.36 | 0.72 | 748.33 |
| | | **>0.3ppmAu** | 755.00 | 761.00 | 6.00 | 0.55 | 0.36 | 0.97 | 133.25 |
| | | **>0.3ppmAu** | 779.00 | 788.00 | 9.00 | 0.65 | 0.36 | 1.17 | 67.67 |

| Criteria | Explanation |
|---|---|

| Hole | Resource Domain | Intercept | From | To | Interval | Cu(%) | Au(ppm) | Ag(ppm) | Mo(ppm) |
|---|---|---|---|---|---|---|---|---|---|
| BEU0500-01 | East Porphyry | **Modeled** | 5.00 | 174.00 | 169.00 | 0.77 | 0.22 | 1.42 | 115.80 |
| | | *incl. >1.0%Cu* | 27.00 | 33.00 | 6.00 | 1.16 | 0.25 | 2.00 | 46.00 |
| | | *incl. >1.0%Cu* | 43.00 | 53.00 | 10.00 | 1.06 | 0.32 | 1.90 | 76.40 |
| | | *incl. >1.0%Cu* | 93.25 | 120.00 | 26.75 | 1.13 | 0.23 | 1.68 | 159.50 |
| | | *incl. >1.0%Cu* | 110.00 | 116.00 | 6.00 | 1.49 | 0.46 | 1.43 | 164.67 |
| | | **>0.3%Au** | 110.00 | 116.00 | 6.00 | 1.49 | 0.46 | 1.43 | 164.67 |
| | | **Modeled** | 190.00 | 266.00 | 76.00 | 0.51 | 0.11 | 1.29 | 146.95 |
| | | **Modeled** | 282.00 | 304.00 | 22.00 | 0.38 | 0.20 | 1.45 | 104.55 |
| | | **Modeled** | 380.00 | 452.00 | 72.00 | 0.52 | 0.20 | 1.90 | 137.31 |
| | | **Modeled** | 438.00 | 452.00 | 14.00 | 0.53 | 0.48 | 2.43 | 140.86 |
| | | **>0.3%Au** | 438.00 | 452.00 | 14.00 | 0.53 | 0.48 | 2.43 | 140.86 |
| BEU0900-06 | East Porphyry | **Modeled** | 7.00 | 71.90 | 64.90 | 0.99 | 0.15 | 0.82 | 112.06 |
| | | *incl. >1.0%Cu* | 13.00 | 21.00 | 8.00 | 1.18 | 0.14 | 0.68 | 150.50 |
| | | *incl. >1.0%Cu* | 57.00 | 71.90 | 14.90 | 1.17 | 0.16 | 1.03 | 120.05 |
| BEU0900-07 | East Porphyry | **Modeled** | 8.50 | 87.80 | 79.30 | 0.69 | 0.15 | 1.04 | 69.49 |
| BEU0900-08 | East Porphyry | **Modeled** | 7.50 | 466.00 | 458.50 | 0.93 | 0.15 | 2.15 | 119.57 |
| | | *incl. >1.0%Cu* | 76.50 | 86.50 | 10.00 | 1.12 | 0.16 | 2.00 | 114.80 |
| | | *incl. >1.0%Cu* | 100.50 | 114.50 | 14.00 | 1.01 | 0.14 | 1.26 | 174.57 |
| | | *incl. >1.0%Cu* | 138.50 | 164.50 | 26.00 | 1.19 | 0.21 | 2.11 | 92.77 |
| | | *incl. >1.0%Cu* | 194.50 | 221.00 | 26.50 | 1.41 | 0.17 | 2.54 | 148.82 |
| | | *incl. >1.0%Cu* | 259.00 | 281.00 | 22.00 | 1.16 | 0.16 | 2.02 | 104.27 |
| | | *incl. >1.0%Cu* | 289.00 | 315.50 | 26.50 | 1.26 | 0.26 | 2.67 | 69.79 |
| | | *incl. >1.0%Cu* | 303.00 | 309.00 | 6.00 | 1.42 | 0.56 | 2.47 | 106.33 |
| | | **>0.3%Au** | 303.00 | 309.00 | 6.00 | 1.42 | 0.56 | 2.47 | 106.33 |
| | | *incl. >1.0%Cu* | 324.00 | 330.00 | 6.00 | 1.03 | 0.43 | 2.03 | 180.67 |
| | | **>0.3%Au** | 324.00 | 330.00 | 6.00 | 1.03 | 0.43 | 2.03 | 180.67 |
| | | *incl. >1.0%Cu* | 394.00 | 402.00 | 8.00 | 1.22 | 0.13 | 12.95 | 96.75 |
| | | *incl. >1.0%Cu* | 436.00 | 446.00 | 10.00 | 1.08 | 0.09 | 2.26 | 112.20 |
| | | *incl. >1.0%Cu* | 458.00 | 464.00 | 6.00 | 1.11 | 0.14 | 2.43 | 151.33 |
| | Not Modelled | **>0.3%Cu** | 505.50 | 519.50 | 14.00 | 0.62 | 0.13 | 1.11 | 61.86 |
| | | **>0.3%Cu** | 559.50 | 583.50 | 24.00 | 0.43 | 0.05 | 1.03 | 85.50 |
| | | **>0.3%Cu** | 593.50 | 607.80 | 14.30 | 0.63 | 0.05 | 4.36 | 132.80 |
| BEU1350-01 | West Porphyry | **Modeled** | 110.00 | 136.00 | 26.00 | 1.11 | 0.07 | 0.79 | 169.23 |
| | | **Modeled** | 168.00 | 178.00 | 10.00 | 1.25 | 0.15 | 0.55 | 88.40 |
| | | **Modeled** | 284.00 | 750.60 | 466.60 | 0.50 | 0.08 | 1.57 | 173.53 |
| | | *incl. >1.0%Cu* | 354.00 | 360.00 | 6.00 | 1.67 | 0.11 | 12.77 | 108.00 |
| BEU1350-02 | West Porphyry | **Modeled** | 376.00 | 472.00 | 96.00 | 0.36 | 0.04 | 0.31 | 98.23 |
| | | **Modeled** | 506.00 | 572.00 | 66.00 | 0.35 | 0.04 | 0.37 | 114.61 |
| | | **Modeled** | 600.00 | 750.00 | 150.00 | 0.53 | 0.05 | 0.85 | 238.57 |
| BEU1450-01 | West Porphyry | **Modeled** | 18.00 | 215.00 | 197.00 | 0.25 | 0.34 | 2.01 | 64.00 |
| | | **Modeled** | 18.00 | 60.00 | 42.00 | 0.02 | 0.66 | 0.45 | 33.86 |
| | | **>0.3%Au** | 18.00 | 60.00 | 42.00 | 0.02 | 0.66 | 0.45 | 33.86 |
| | | **Modeled** | 88.00 | 96.00 | 8.00 | 0.03 | 0.98 | 10.88 | 28.50 |
| | | **>0.3%Au** | 88.00 | 96.00 | 8.00 | 0.03 | 0.98 | 10.88 | 28.50 |
| | | **Modeled** | 110.00 | 136.00 | 26.00 | 0.02 | 0.63 | 2.45 | 44.62 |
| | | **>0.3%Au** | 110.00 | 136.00 | 26.00 | 0.02 | 0.63 | 2.45 | 44.62 |
| | | *incl. >1.0%Cu* | 207.00 | 213.00 | 6.00 | 1.03 | 0.08 | 0.65 | 103.33 |
| | Outer BWP | **Modeled** | 215.00 | 382.00 | 167.00 | 0.49 | 0.08 | 0.73 | 71.35 |
| | West Porphyry | **Modeled** | 382.00 | 474.00 | 92.00 | 0.29 | 0.08 | 0.68 | 65.48 |
| | Outer BWP | **Modeled** | 474.00 | 562.00 | 88.00 | 0.41 | 0.08 | 1.02 | 95.95 |
| | West Porphyry | **Modeled** | 562.00 | 750.00 | 188.00 | 0.46 | 0.09 | 0.83 | 56.49 |

| Criteria | Explanation |
|---|---|
| Data aggregation methods | Raw assays were used in the TIN domain modelling process.<br><br>3m composites were generated and coded by triangulations with the same domain code as values as used in coding the block model interpolation domains. Individual intercepts are tabulated in the "Drill hole Information" section (above). Composite numbers and average grades within interpolation domains are tabulated below. |

| Criteria | Explanation |
|---|---|

| Domain Classification | Domain | Number of Composites | | | | | Average Grade (ppm) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cu | Au | Ag | Mo | As | Cu | Au | Ag | Mo | As |
| **Mineralised** | East Porphyry | 3776 | 3776 | 2806 | 3776 | 3776 | 6699 | 0.13 | 2.1 | 106 | 138 |
| | West Porphyry | 1425 | 1425 | 794 | 1425 | 1425 | 4299 | 0.12 | 1.1 | 147 | 259 |
| | Outer East Porphyry | 975 | 975 | 555 | 975 | 975 | 2535 | 0.06 | 1.6 | 93 | 120 |
| | Outer West Porphyry | 532 | 532 | 170 | 532 | 532 | 2550 | 0.10 | 1.1 | 54 | 144 |
| | Skarn | 269 | 269 | 168 | 269 | 269 | 7661 | 0.33 | 8.1 | 15 | 159 |
| | **Total** | **6977** | **6977** | **4493** | **6977** | **6977** | **5348** | **0.12** | **2.1** | **105** | **162** |
| **Non-Mineralised** | Barren Breccia | 797 | 797 | 591 | 797 | 797 | 1702 | 0.07 | 1.5 | 49 | 44 |
| | Diorite Dyke | 187 | 187 | 115 | 187 | 187 | 1011 | 0.04 | 0.3 | 56 | 24 |
| | Serpentinite | 541 | 541 | 321 | 541 | 541 | 914 | 0.07 | 2.6 | 19 | 64 |
| | Unconstrained | 4844 | 4844 | 1727 | 4844 | 4844 | 942 | 0.05 | 2.1 | 47 | 88 |
| | **Total** | **6369** | **6369** | **2754** | **6369** | **6369** | **1037** | **0.05** | **2.0** | **45** | **78** |
| **Total** | | **13346** | **13346** | **7247** | **13346** | **13346** | **3290** | **0.09** | **2.0** | **77** | **122** |

| Criteria | Explanation |
|---|---|
| Relationship between mineralisation widths and intercept lengths | There is no discernible relationship between grade and differing interval lengths or orientation of holes to domain geometries.<br><br>EMM personnel and H&A have not recognized any persistent prevailing veining or micro/meso-scale mineralizing orientations at Beutong. Furthermore there is no oriented core and limited logging data to effectively investigate this relationship through data interrogation methods. Due to the nature of the mineralisation H&A considers that the mineralised drill intercept lengths approximate true thicknesses (resulting in minimal impact on experimental variography) and that the modelling of the deposit, in generating a resource estimate, correctly accounts for any volume (tonnage) considerations.<br><br>H&A considered that any likely grade uncertainty relating to primary sampling orientations (eg. vein to core axis angles) be accounted for through classification of the resource estimate. With the mineralisation being both of porphyry and skarn style and of significant scale, and at the current sampling densities (a consideration in classifying the resource estimate), H&A considers that any local unfavourable primary sampling orientation would not materially impact on the global grade of the Measured and Indicated Resources at Beutong. Any risk to the estimate associated with the primary sampling orientation within the less densely drilled volumes of mineralisation is reflected through the low confidence Inferred Resource Classification (JORC 2012) applied to these volumes. |
| Diagrammes | Tables and figures relating to drillhole locations, plan and cross section interpretations and tabulated drillhole intercepts are included under the appropriate section headings in this JORC 2012 table report, as are diagrammes relating to the data evaluation and resource modelling procedures. |
| Balanced reporting | The entire sample intervals utilised in the resource model have been composited and presented in the “Drill hole information” section of this table. Significant intersections not included in the resource model are also listed in this section. |
| Other substantive exploration data | Only drillhole and geological mapping data/information is utilised in undertaking the Beutong 2019 Resource Estimate. These datasets are discussed under appropriate section headings in this table. Other than that included in this document, there was no relevant data |

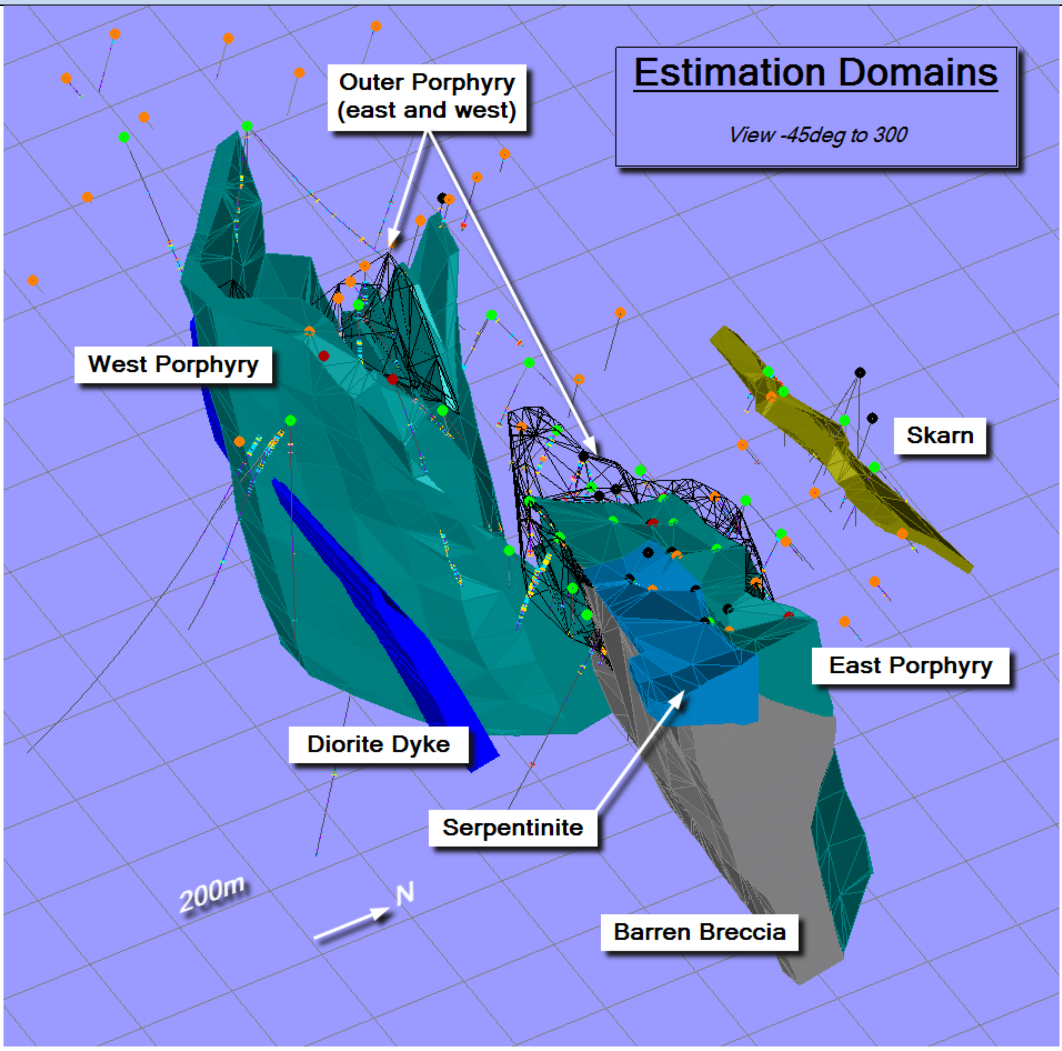
| Criteria | Explanation |
|---|---|
| | or information offered to or uncovered by H&A during the course of generating the Beutong 2019 resource estimate. |
| Further work | Infill and extension drilling is required to update and expand the current mineral resources at Beutong. These activities are discussed further under the "Discussion of relative accuracy/ confidence" section below. |

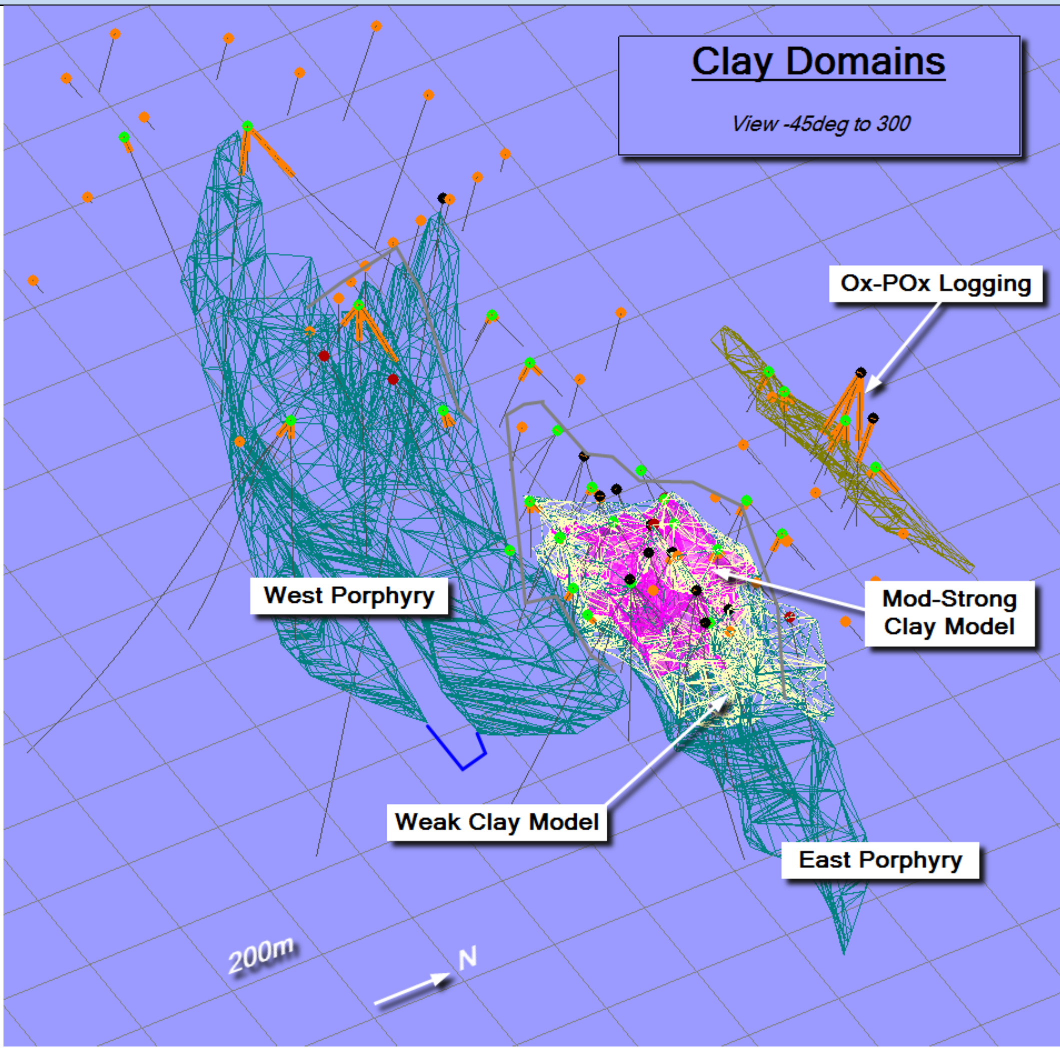
**Estimation and Reporting of Mineral Resources**

| Criteria | Explanation |
|---|---|
| Database integrity | **EMM Supplied Files**<br><br>113 files containing data, information and interpretation were utilised by H&A in undertaking the Beutong 2019 resource estimate. The data and information covered areas of the estimation such as:<br><br>• Topography and grids: utilised for the validation of Drillhole locations and Resource Estimate topographic surface.<br>• Drilling data: hole details, logging, sampling details and lab assay result files (routine plus QC) for generating csv files for resource estimation software (includes cross-check against rebuilt assay dataset from ITS report files). Utilised for creating domain triangulations, block model and resource model/estimate.<br>• SG data: DBD data for determination of Tonnage Factors.<br>• Geological Interpretation: 3D dxf transfers of TCS and EMM geological interpretation – cross sections, radial interpolation models and surface plans utilised for guiding and validating resource domain triangulations.<br>• QC analysis: Utilised for determining assay reliability and verification.<br>• Data quality evaluation: core recovery logging utilised to assess with grade to determine sampling reliability<br><br>Details regarding the use of this data in producing and classifying the Beutong 2019 resource estimate are included under the appropriate sections in this document.<br><br>H&A is satisfied that the files/data and information supplied by EMM is sufficient and suitable for producing a resource estimate on the mineralization at Beutong and for evaluating the risk inherent in the estimate and reporting findings following the guidelines set out in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2012 Edition). EMM provided written assurance that the data supplied is current, complete, accurate and true and that they have disclosed all data and information material for the assessment of the resources at Beutong.<br><br>**Validation and Checks**<br><br>In March 2012 TCS instigated a project to re-organize and review all historic data and information and correct/validate the previous workers drilling data from source files uncovered during this work. In parallel to this, TCS's personnel constructed and corrected data within a Vulcan™ database while undertaking evaluation of the drilling and the geological interpretation of the Beutong deposit. The TCS Access™ database (now EMM Access™ database, having been updated with the 2018 drilling data) is the official dataset for the project and the Vulcan™ dataset is an alternative that has been utilised as a check dataset for validating the resource estimation data.<br><br>Drill core logging was validated through cross-checks with details in core photographs during the EMM cross-sectional interpretation stage of the work. Clay logging was also checked and completed at this stage, where logs for historic holes were compiled. |

| Criteria | Explanation |
|---|---|
| | There are no recorded audits of the drilling database. The FPT, TCS and EMM drilling datasets were validated by H&A prior to undertaking the 2019 resource estimate (refer to comments in the "Verification of sampling and assaying" section).<br><br>Additional checks undertaken by H&A in undertaking the Beutong 2019 resource estimate:<br><br>• Evaluation of sampling, comminution, subsampling and assay Quality Assurance, Quality Control programmes/analyses.<br>• Cross check of Vulcan ™, Access ™ and rebuilt ITS SIF file assay datasets. Cross-checking of 2019 data with time stamped 2014 resource assay data.<br>• Spurious SG (DBD) data were excluded from the dataset used in determining resource tonnage factors.<br>• All drillhole datasets were subjected to interval checks (missing, overlaps, gaps), element field checks (missing, detection limit conversion, over range assay substitution).<br>• Hole locations not verified by GPS surveys were verified by cross checking collar coordinates against historic maps plotting their location.<br>• Downhole surveys from the database were crosschecked against the collar survey details and a secondly supplied Vulcan™ survey dataset. Significant deviations in azimuth and dip measurements were investigated (± 5 degrees deviation between consecutive surveys, assessment with geology logs) and the drillhole trace determined by utilising adjusted azimuths and dips to account for severe, unexplained and most likely erroneous surveys.<br>• Basic statistics confirmed that the Vulcan™ compositing routine was correctly employed and executed on the resource dataset in generating the resource 3m composite dataset. |
| Site visits | Duncan Hackman from Hackman and Associates Pty Ltd (H&A) undertook a site inspection of the Beutong Project, the TCS core processing and storage facility (the current EMM facility) and the PT Intertek Utama Services sample processing and laboratory facilities from February 27, 2012 to March 3, 2012. The primary reason for visiting the prospect, core and laboratory facilities was to locate and confirm evidence of exploration activities reported by TCS and earlier workers, to observe the drilling and sampling procedures being conducted by TCS and to observe and confirm copper mineralisation in core and outcrop. H&A also assessed and modified core handling and sampling protocols employed by TCS to improve their suitability for preserving core and sample integrity, accounting for site and prospect specific conditions and features, so that greater reliability can be placed on data and information derived from the material. A protocols document was produced from this work.<br><br>H&A did not uncover any reason to question the exploration activities undertaken in exploring and evaluating the Beutong prospect nor to question the presence of copper mineralisation of the tenor and styles reported by TCS/EMM.<br><br>Geological and assay results for the 2019 resource update holes are not unusual for the Beutong mineralisation and H&A considers that no material changes to the understanding or evaluation of the Beutong mineralisation has occurred in the intervening time between Mr. Hackman's site visit, the 2012 resource estimate, the 2014 resource estimate and the 2019 resource estimate. |

| Criteria | Explanation |
|---|---|
| Geological interpretation | A summary of the geology and mineralisation is included under the "Geology" section (above).<br><br>Sectional interpretation of the project geology was supplied from site to H&A as 3D drawing exchange files (example shown in the "Geology" section (above). The outlines in these files and a 3D radial interpretation TIN model supplied by EMM were used as a guide to generate the resource interpolation domains which are TIN (triangulated) 3D geometries that honour both the geological interpretation, the copper grade from the drillhole data and the spatial location of samples. The interpolation domains differ from the geological interpretations as they have been simplified to more robustly honour the drilling intercepts (straight line interpretations), are restricted to the mineralised portions of the porphyry and have been modified to generate more simplified 3D geometries than those described by the sectional geology interpretation outlines. The overall volumes defined by the resource domain, the geology interpretation strings and EMM radial interpolation models are comparable where the mineralisation is classified as Indicated and Measured Resources (JORC 2012).<br><br>The Beutong resource domains were modelled using the Minesight$^{TM}$ mining software package and triangulations imported into Vulcan$^{TM}$ to complete the resource estimate. To ensure spatial consistency the drillholes were first desurveyed in Vulcan$^{TM}$, then polar coordinates were generated for each assay interval and used to define the hole traces in Minesight$^{TM}$. The triangulations used in generating the estimation and tonnage factor domains are displayed in the following figures: |

| Criteria | Explanation |
|---|---|
| | <br>**Beutong resource estimation domains.** |

| Criteria | Explanation |
|---|---|
| |   **Beutong clay domains (utilized to assign tonnage factors) and Oxide/Partial-Oxide logged intervals.**<br><br>The final triangulations utilised for grade interpolation are listed in the following table which also shows the average grade for samples within 15m of the resource domains' contacts. The distinct grade differential for Cu and Mo between the porphyry and other domains is portrayed in this table. The grade differential is less obvious between the outer porphyry domain and non-mineralised material for these elements, reflecting the sporadic nature of this peripheral mineralisation. Grade differentials are less obvious for Au and Ag and only moderately detectable for As. Distinct grade differentials are observed for all elements across the skarn domain contact. The grade tenor differential shown in the table and by more detailed analysis undertaken as part of the exploratory data analysis and estimation design work supports the employ of the domains as hard boundaries for controlling grade interpolation for copper, gold, silver and molybdenum with no boundaries applied for the arsenic interpolation (which shows more continuous grade distribution across the prospect). |

| Criteria | Explanation |
|---|---|
| | |

| Contact | Domain | Count | Average Grade : Samples within 15m of contact | | | | |
|---|---|---|---|---|---|---|---|
| | | | Cu (ppm) | Mo (ppm) | Au (ppm) | Ag (ppm) | As (ppm) |
| **Porphyry_East to Outer_Porphyry_East** | Porphyry_East | 91 | 4639 | 175 | 0.06 | 1.4 | 174 |
| | Outer_Porphyry_East | 85 | 1953 | 93 | 0.05 | 0.7 | 69 |
| **Porphyry_East to other** | Porphyry_East | 270 | 5250 | 87 | 0.11 | 2.1 | 67 |
| | other | 270 | 1470 | 40 | 0.06 | 1.5 | 45 |
| **Outer_Porphyry_East to other** | Outer_Porphyry_East | 65 | 2903 | 55 | 0.05 | 3.3 | 156 |
| | other | 70 | 1527 | 47 | 0.04 | 0.7 | 36 |
| **Porphyry_West to Outer_Porphyry_West** | Porphyry_West | 67 | 4376 | 84 | 0.10 | 0.6 | 188 |
| | Outer_Porphyry_West | 59 | 2020 | 64 | 0.07 | 1.7 | 93 |
| **Porphyry_West to other** | Porphyry_West | 72 | 3752 | 131 | 0.10 | 2.7 | 199 |
| | other | 80 | 1568 | 90 | 0.07 | 2.8 | 125 |
| **Outer_Porphyry_West to other** | Outer_Porphyry_West | 41 | 778 | 63 | 0.10 | 0.9 | 79 |
| | other | 45 | 674 | 75 | 0.11 | 11.8 | 45 |
| **Skarn to other** | Skarn | 143 | 7831 | 9 | 0.28 | 8.5 | 204 |
| | other | 131 | 878 | 19 | 0.06 | 2.1 | 51 |

Clay models were generated from broad classification logging of core photographs (in conjunction with the coreyard logs). The aim of the clay logging is to assess the association between dry bulk density (DBD) measurements and the intensity of clay alteration. Core was classified as being either:

- Clay type 0 = no clay alteration.
- Clay type 1 = weak patchy/blotchy clay alteration and vein infill.
- Clay type 2 = moderate to strong patchy/blotchy clay alteration and vein infill – commonly showing weak to moderate internal core loss.
- Clay type 3 = strong to intense pervasive clay alteration, obliterating original textures – commonly showing moderate to intense internal core loss.

There is an association between DBD and intensity of clay alteration and the clay model is utilised in applying tonnage factors to the resource model.

| Criteria | Explanation |
|---|---|
| Dimensions | The Beutong 2019 resource estimate applies to outcropping porphyry and skarn hosted copper-gold-silver-molybdenum mineralisation centred on 229900E, 495400N (WGS84, UTM Zone 47N). The mineralisation has been delineated as three bodies over a strike length of 1500m (towards 080$^{O}$), across a total width of 700m and to a depth of 600m below surface (refer plan, cross section and diagrammes in sections "Geology" and "Geological interpretation", above). The deepest drilling intercepts the porphyry mineralisation at 800m below surface, indicating that the mineralisation persists below the current depth of delineation drilling. Mineralisation is open to the east, west and at depth.<br><br>Porphyry style copper, gold, silver and molybdenum mineralisation is hosted in a fractured and brecciated diorite known locally as the Beutong Porphyry. This porphyry forms the majority of the 3km by 1.5km Beutong Intrusive Complex. Mineralisation is cut by dioritic and dacitic post mineralisation dykes and a persistent un-mineralised footwall breccia complex. Well-developed porphyry mineralisation is located in the eastern half of the deposit. Mineralisation is less-well developed and patchy, both peripheral to the eastern porphyry core and in the western half of the deposit. Skarn mineralisation has been delineated to the north of the porphyry mineralisation, at the steeply dipping contact between the Beutong Intrusive Complex at a thick limestone unit. Grade differential |

| Criteria | Explanation |
|---|---|
| | between the mineralised domains is reported in the mineral resource table and in tables describing assays from these domains in sections "Drill hole Information" and "Data aggregation methods" (above). |
| Estimation and modelling techniques | Grade estimation was undertaken using the Vulcan™ software. Assay data was composited to 3m lengths. Both block model and composites were coded by estimation domain triangulations and these codes used to guide grade interpolation.<br><br>**Kriging Parameters**<br><br>The experimental data analysis and estimation design was undertaken by QG Group Pty. Ltd. (QG) in conjunction with H&A. The analysis was undertaken for the 2012 estimate and remains the same for the 2019 estimate. The additional of data from the four holes in 2014 and 7 holes in 2019 targeted mainly the sparsely drilled Inferred volumes of the mineralisation (70% of composites in the additional data). 51% of composites in the 2012 dataset are within the Measured and Indicated volumes of the mineralisation which increases by 6% to 57% in the 2019 dataset. H&A considers that the spatial location and relative distribution of the new data (Measured+Indicated vs. Inferred volumes) will have negligible effect on the data analysis and estimation design as therefor has adopted the 2012 estimation parameters for the 2019 resource estimate.<br><br>QG reviewed the data and domain models and recommended that:<br><br>• Hard boundaries should be used for the estimation Cu, Au, Mo and Ag (according to estimation domains). While As should be estimated un-bounded;<br>• Spatial (variogram) analysis for Beutong shows the Cu grade within the main Porphyry domain to be reasonably continuous with maximum range of 200m towards 340° with a 70° dip, as illustrated by relatively low 'nugget' (25%). However, the Au, Ag, and Mo grades are less continuous within the Porphyry domain with moderate relative nugget effects (42 – 54%) and ranges of 45 to 200m. All elements across the Outer Porphyry and Skarn domains display only moderate continuity with relative nugget effects in the range of 40 – 54% and ranges from 34 to 190m. The decision to not use a boundary in the estimation of As is further supported by the variogram using all of the data, which displays reasonable continuity with a range of 45m and a relative nugget of 29%;<br>• A grade restriction strategy be applied to the Porphyry, Outer Porphyry and Skarn domains for Cu and Au, based on assessment of the histogram, cumulative probability plots and grade length of the element concerned; and<br>• The results of QKNA suggest an ellipse in the order of 200m x 120m x 90m for all three domains, orientated to the average orientation of the domains. A minimum number of samples selected of 6 and a maximum of 28, with 7 samples per quadrant. |

| Criteria | Explanation |
| --- | --- |

**High Grade Treatment**

Treatment of high grade composite data is listed in the following table.

| Element | Porphyry | | | | Outer Porphyry | | | | Skarn | | | | %Metal |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Threshold (ppm) | Treatment | Composites Affected | Av. Grade > threshold | Threshold (ppm) | Treatment | Composites Affected | Av. Grade > threshold | Threshold (ppm) | Treatment | Composites Affected | Av. Grade > threshold | diffence (from check estimate) |
| Cu | 16000 | Restrict | 73 | 20053 | 11000 | Restrict | 24 | 15883 | 17000 | Restrict | 26 | 26160 | 3.0% |
| Au | 0.60 | Cut | 27 | 1.12 | 0.50 | Cut | 8 | 1.14 | 0.65 | Restrict | 35 | 1.37 | 3.7% |
| Ag | 6.0 | Restrict | 191 | 13 | 3.5 | Restrict | 47 | 10.3 | 15.0 | Restrict | 27 | 21.7 | 26.0% |
| Mo | - | None | - | - | - | None | - | - | 30 | Cut | 20 | 120 | 0.8% |
| As | 2000 | Cut | 102 | 3900 | incl in Porphyry figures | | | | incl in Porphyry figures | | | | 25.6% |

**Block Interpolation Parameters**

Advice from QG and visual observations regarding the data spatial distribution and domain geometries were used to design the neighbourhood search parameters. The following parameters were utilised for interpolating grade into the block model:

- First Pass:
  - Minimum number of composites to estimate variable: 6
  - Maximum number of composites to estimate variable: 28
  - Octant Search:
    - Minimum number of composites per octant: 1
    - Maximum number of composites per octant: 4
    - Minimum number of octants informed before a grade is estimated: 4
  - A minimum of samples from 4 drillholes required before a grade is estimated
  - No limit to maximum number of samples accepted from individual holes
  - Composite values above cuts are set to cuts. Samples above restriction thresholds are restricted to estimate blocks within 50 (major) x 50 (semi-major) x 30 (minor) metres from composite location, oriented by search ellipsoid.
  - Each block is discretized with
    - 5 steps in the X direction,
    - 5 steps in the Y direction and
    - 2 steps in the Z direction
  - Sample points are selected by a search ellipsoid with the following Radii:
    - Major: 200m
    - Semi-major: 120m
    - Minor: 90m

    Composites restricted to interpolate grade into the blocks within the same estimation domains as they are located for Cu, Au, Ag and Mo. No restrictions applied in the estimation of As.

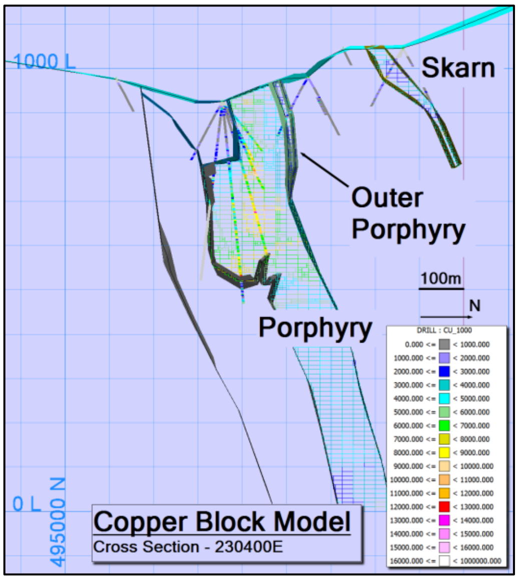
  - Ellipsoids orientation:
    - Porphyry and Outer Porphyry Domains:

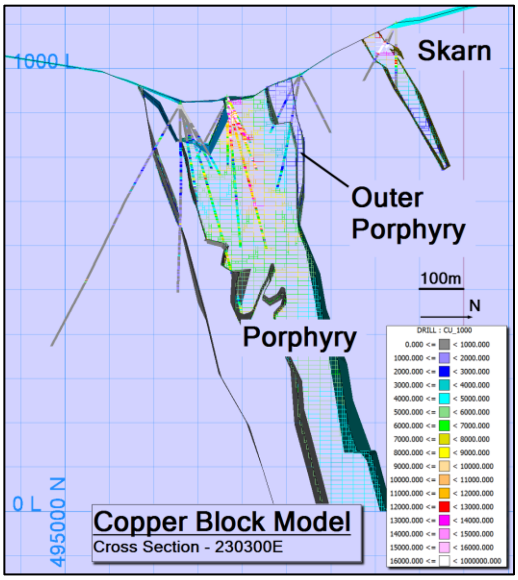
| Criteria | Explanation |
| --- | --- |
| | – Bearing: 340$^{O}$ rotation around Z' axis<br>– Plunge: -70$^{O}$ rotation around Y' axis<br>– Dip: 0$^{O}$ rotation around X' axis<br>▪ Skarn:<br>– Bearing: 270$^{O}$ rotation around Z' axis<br>– Plunge: 0$^{O}$ rotation around Y' axis<br>– Dip: -60$^{O}$ rotation around X' axis<br>▪ Ordinary Kriging parameters involving a nugget and two nested spherical structures**.**<br>▪ Estimates are conducted at block centroids and written to sub-blocks<br>• Second Pass – for blocks not estimated in Pass 1 and if the number of drillholes is less than 4 in pass 1, parameters the same as for Pass 1 except:<br>o The minimum number of drillholes requirement not utilised<br>o Sample points are selected by a search ellipsoid with the following Radii:<br>▪ Major: 600m<br>▪ Semi-major: 360m<br>▪ Minor: 270m<br>o Pass 2 not undertaken for As (increased search ellipsoid selects samples from significant lateral distance away from mineralised domains).<br>• Third Pass – for blocks not estimated in Pass 1 or Pass 2, parameters the same as for Pass 2 except:<br>o No octant search requirement in selecting composites for grade interpolation.<br><br>**Grade Interpolation Performance**<br><br>The basic statistics on the reliability of the estimates are listed in the following table. The interpolation (and classification) strategy has performed as designed, with blocks estimated and classified as Measured Resources (JORC, 2012) having been estimated with close to the ideal (maximum) composite numbers, from a high number of holes, located relatively close to blocks (<87m). 87% of the Measured Resource is interpolated in the first pass, whereas for the Indicated Resources this portion drops to 54% and lower at 4% for the Inferred Resources. The Inferred Resources fails on the first estimation run pass predominantly due to the minimum number of holes requirement (set at equal to or more than four holes).<br><br>Copper, Gold, Silver and Molybdenum grades are estimated for the entire porphyry, outer porphyry and skarn TIN models. A single pass utilised in interpolating arsenic has resulted in grades being estimated for 100% of the Measured Resources, 96% of the Indicated Resources and only 36% of the Inferred resources.<br><br>**Interpolation statistics for estimated blocks** |

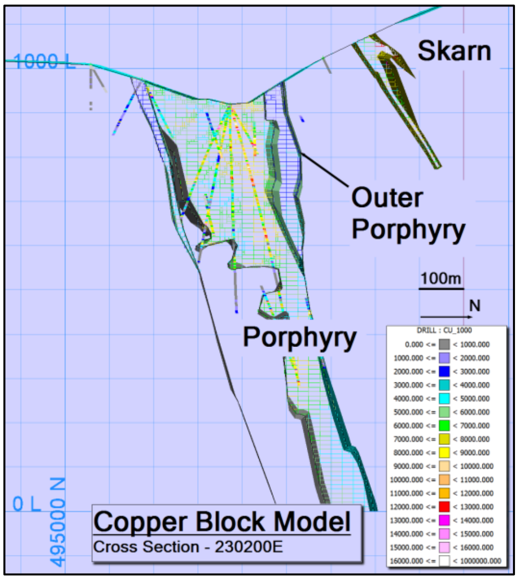
| Criteria | Explanation |
|---|---|
| | |

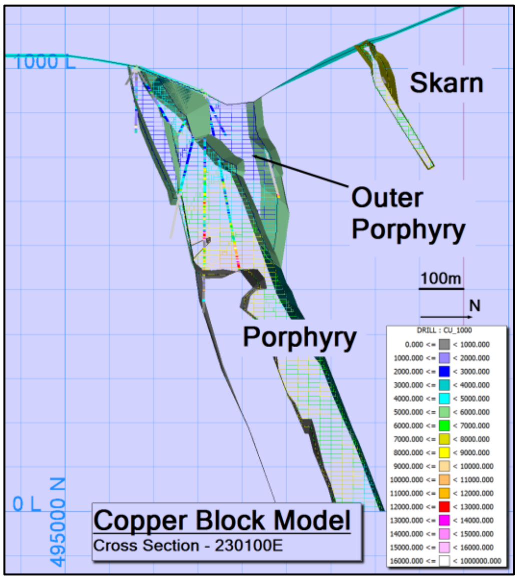
| Resource Classification (NI43-101) | Estimation Run | Copper, Gold, Silver, Molydenum - estimated blocks | | | | Arsenic - estimated blocks statistics | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | % Volume Estimated | Av Distance to Composites | Av number of Composites | Av number of Drillholes | % Volume Estimated | Av Distance to Composites | Av number of Composites | Av number of Drillholes |
| Measured | Pass 1 | 87% | 73 | 27.4 | 4.8 | 100% | 75 | 27.4 | 4.6 |
| | Pass 2 | 13% | 87 | 27.3 | 3.4 | | | | |
| Indicated | Pass 1 | 54% | 101 | 24.4 | 4.6 | 100% | 123 | 24.6 | 4.4 |
| | Pass 2 | 46% | 159 | 24.8 | 4.1 | | | | |
| | Pass 3 | 1% | 99 | 28.0 | 2.6 | | | | |
| Inferred | Pass 1 | 4% | 112 | 21.7 | 4.4 | 100% | 187 | 23.6 | 4.1 |
| | Pass 2 | 80% | 259 | 22.2 | 3.9 | | | | |
| | Pass 3 | 16% | 328 | 28.0 | 1.6 | | | | |

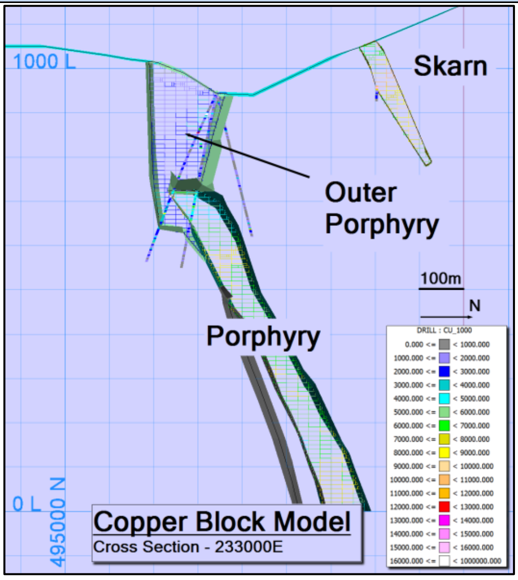
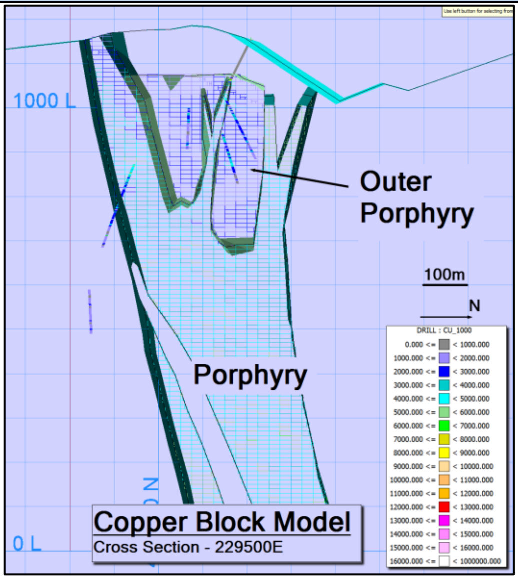
Examples of the distribution of the interpolated blocks can be seen in the following figures.



| Criteria | Explanation |
|---|---|
| | <br><br>**Display of estimated Copper grades.** |
| Moisture | The resource estimate tonnage factors are based on dry bulk density measurements. All assays were undertaken on oven dried sample pulps. The resource is estimated on a dry basis. |
| Cut-off parameters | The Beutong 2019 Mineral Resource (JORC 2012) is reported at 0.3% and 0.5% copper reporting cuts and for a volume bound by 229050mE and 230600mE, 494800mN and 495920mN and above 000mRL. The reporting cuts of 0.3%Cu and 0.5%Cu are in line with how resource estimates are reported for other porphyry projects in the Southeast Asia Region. For example:<br><br>• Batu Hijau, a large porphyry mine with a resource of 914 Mt @ 0.53% Cu & 0.40 g/t Au applies similar reporting cuts.<br>• Tampakan, in the Philippines applies reporting cuts of 0.2%Cu and 0.3%Cu.<br><br>The 0.3%Cu reporting cut is the preferred cut for reporting of the Beutong Copper Mineralisation as it defines the extent of the Mineral Resources considered to have reasonable prospect of economic extraction.<br><br>The 0.5%Cu reporting cut spatially delineates the extent of the high grade core in the upper reaches of the East Porphyry Mineralisation. It also describes 80% of the Measured Resources and 65% of the Indicated Resources. 65Mt of Measured + Indicated Resources and 46Mt of Inferred Resources reported above this cut are estimated within the East Porphyry Mineralisation and reflect a likely high-grade copper resource that would impact positively in any economic analysis of the project. |
| Mining factors or assumptions | There has been no investigation into Ore Reserve modifying factor parameters for the Beutong 2019 Resource Estimate. |
| Metallurgical | Preliminary flotation test work was conducted on Beutong drill core samples by Metcon |

| Criteria | Explanation |
| --- | --- |
| factors or assumptions | Laboratories. The aim of the test work was to demonstrate acceptable metallurgical performance of a conventional crush/grind/flotation process to produce a saleable, quality product (copper concentrate). The main copper bearing minerals reported at Beutong are covellite and digenite which suggest high concentrate grades will result from flotation. Enargite ($Cu_3AsS_4$) is also reported and could potentially lead to elevated levels of arsenic (As) in the copper concentrate produced. Despite the preliminary nature of the test programme and the quality of the samples used, the simple conclusions are as follows:<br>• Beutong ore is amenable to a conventional crush/grind/float process.<br>• A saleable copper concentrate can be produced – both in terms of the copper grade and the arsenic levels.<br>• Further test work is needed to improve the metallurgical performance – higher copper recoveries and concentrates grades are expected than returned from the current testwork. *[Note: Three holes drilled by EMM in 2018 were done so to obtain representative metallurgical samples from the higher grade core of the East Porphyry Mineralisation. Core from these holes have been preserved by drying, nitrogen purging and vacuum sealing in preparation for future testwork.]*<br>• Elevated molybdenum levels in ore may provide for a by-product molybdenum concentrate with related financial benefits. |
| Environmental factors or assumptions | There has been no environmental investigation at this early stage of work on the Beutong project.<br><br>There are 2 types of forest classification within the Beutong IUP area; Protected and Other Purposes. Based on Aceh Provinces's Department of Forestry function map (Number 522.51/4261-III), approximately 36.2% (3,617ha) of the IUP is designated as Areal Penggunaan Lain (APL) or Forest Other Purposes (open pit or underground mining permitted, and the remaining 63.8% (6383ha) is classified as protected or conservation forest (underground mining permitted, no open-pit mining).<br><br>The Beutong project area is 100% within the forest classification APL, the Ministry of Forestry does not require companies to obtain a Pinjam Pakai permit to conduct exploration activities within areas designated APL. No exploration has been carried out in areas outside of the APL area surrounding the Beutong Project. |
| Tonnage Factors/Dry Bulk Density | **Tonnage Factors**<br><br>Average dry bulk density numbers are employed as tonnage factors for the resource estimate.<br><br>Dry Bulk Density (DBD) determinations were coded by the modelled clay domains. The average DBD for samples within the clay domains is 2.25g/cc (from 389 samples) and for those outside of the clay domains is 2.37g/cc (286 samples). These tonnage factors were stamped on the block model according to clay coding of blocks assigned by the same clay domains. |

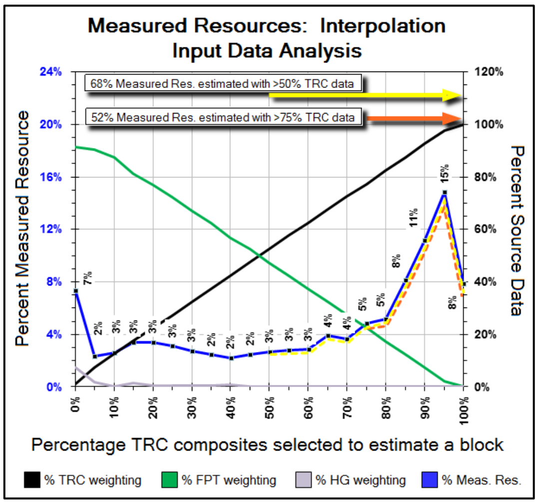
| Criteria | Explanation |
| --- | --- |
| | **Dry Bulk Density Determination**<br><br>SG measurement taken by FPT are more akin to bulk densities as core was sun "dried" and immersed unsealed for volume determination. FPT SG measurements were not used in determining tonnage factors.<br><br>There are no drying ovens at Beutong and TCS (2011 to 2014) undertook dry bulk density measurements by:<br>• Undertaking core yard SG measurements as the first activity in drill core treatment (immediately). The protocols rely on the SG sample surface being saturated, which occurs during the drilling process.<br>• Geologists selecting nominal minimum 20cm pieces of core to be representative of the physical characteristics of significant intercept lengths of material. The general rule employed is that if a change in the characteristics looks significant (goes for a number of meters) then select a sample that is representative of that changed material.<br>• Weighing sample in air (QA protocols assure balance accuracy)<br>• Weighing sample submerged in water (QA protocols ensure water quality and depth assured). Volume of sample determined.<br>• Transferring SG sample to ITS laboratory (Medan) for weighing, oven drying and re-weighing. Moisture content and dry bulk density determined.<br>• Returning SG sample to assay-interval sample for inclusion in analysis.<br><br>To guard against sample selectivity, and to reflect the observation that sulphide content is generally low for mineralised intervals, the BD and DBD datasets were trimmed to exclude values <1.00g/cc and >3.00g/cc. |
| Classification | Confidence in geological and grade continuity, data reliability and interpolation reliability are the key considerations in determining the resource classification as per the guidelines outlined in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Only the more closely drilled areas of the Eastern Porphyry and Skarn mineralisation were considered for Indicated and Measured Classification on this criterion. Drilling density for all other areas of the resource at Beutong is such that the geological and grade continuity is assumed (based on the porphyry mineralisation model) which limits their classification to Inferred status under the JORC Guidelines (2012 Edition).<br><br>In classifying the resource:<br><br>• Domain contacts for volumes considered for Measured and Indicated Resources had to be well defined and consistent/predictable by drill holes and surface data. The volume most densely drilled shows that the geological contacts for the Measured and Indicated Resources are acceptably consistent and predictable from section to section.<br>• Grade ranges within volumes considered for Measured and Indicated Resources had to be consistent/predictable. Contact analysis investigations show significant grade tenor differences between interpolation domains and consistency throughout the |

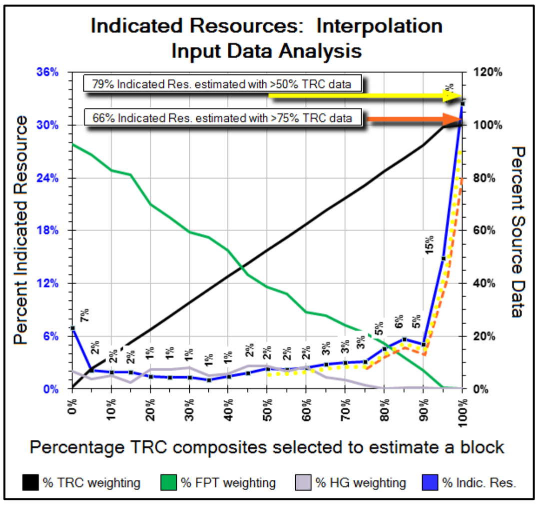
| Criteria | Explanation |
|---|---|
| | Measured and Indicated Resources volumes (on a moving average basis).<br>• Analytical QC data for EMM, TCS and FPT samples shows that resources estimated with samples from holes drilled by these workers can be considered for Measured and Indicated Classifications, however the unknown reliability of the HG assays dictates that resources estimated with significant weighting of this data be considered only for Inferred Classification (JORC 2012).<br>• The suspected core recovery and handling/sampling issues, suggested from observations in both the relationship between recovery and grade and the grade tenor comparisons between datasets, shows that there is a risk associated with resources estimated by the FPT and HG data. Volumes considered for Measured and Indicated Resource classification that have a high portion of their source data from these programmes were assessed with respect to their grade continuity with adjoining volumes estimated predominantly with data from the EMM and TCS drilling programmes before being assigned these classifications.<br><br>The sample weightings for the portions of Measured and Indicated Resources can be seen in the figure below. The effect of the suspected low biased FPT data will correlate positively with the percentage of FPT data selected to inform a block's grade. The figure shows that for 52% of the Measured Resource and for 66% of the Indicated Resource the FPT sample weighing is <25% (>75% TCS data). It is likely that grades for these resources are affected at lower than 10% (relative); however this estimate of risk cannot be verified without appropriate test work. Similarly 32% of the Measured Resource and 21% of the Indicated Resource are estimated with more than 50% of data from the FPT drilling. Grades may be affected in the range of 10% to 30% (relative) for these resources. Spatial analysis identifies the upper 140 metres of the Eastern Porphyry Measured and Indicated Resources being heavily weighted by the FPT data, particularly between sections 230100E and 230300E. *[Note: This analysis was undertaken for the 2014 resource estimate and not updated with the data from the four holes drilled into the eastern porphyry in 2018. The addition of the 2018 holes into this evaluation would not impact materially on the observations, interpretations stated and the actions undertaken in classifying the resource estimate.]*<br><br>Globally the Measured Resource estimate is 65% weighted by TCS (and EMM) data, 34% by FPT data and 1% by HG data. The Indicated Resource estimate is 75% weighted by TCS (and EMM) data, 23% by FPT data and 2% by HG data. Globally, the risk associated with the FPT data has been minimized due to the drilling configuration and the interpolation methodology (it is likely that the use of the FPT data has translated into a 5-10% reduction in the global Cu grade). However, the risk associated with local resources that are heavily weighted by the FPT data will have manifested as a more severe low grade bias, translating into uncertainty of resources, particularly those close to mining cut-off grades. This risk must be considered when applying conversion factors in determining Reserves from both the |

| Criteria | Explanation |
|---|---|
| | Measured and Indicated Resources. |

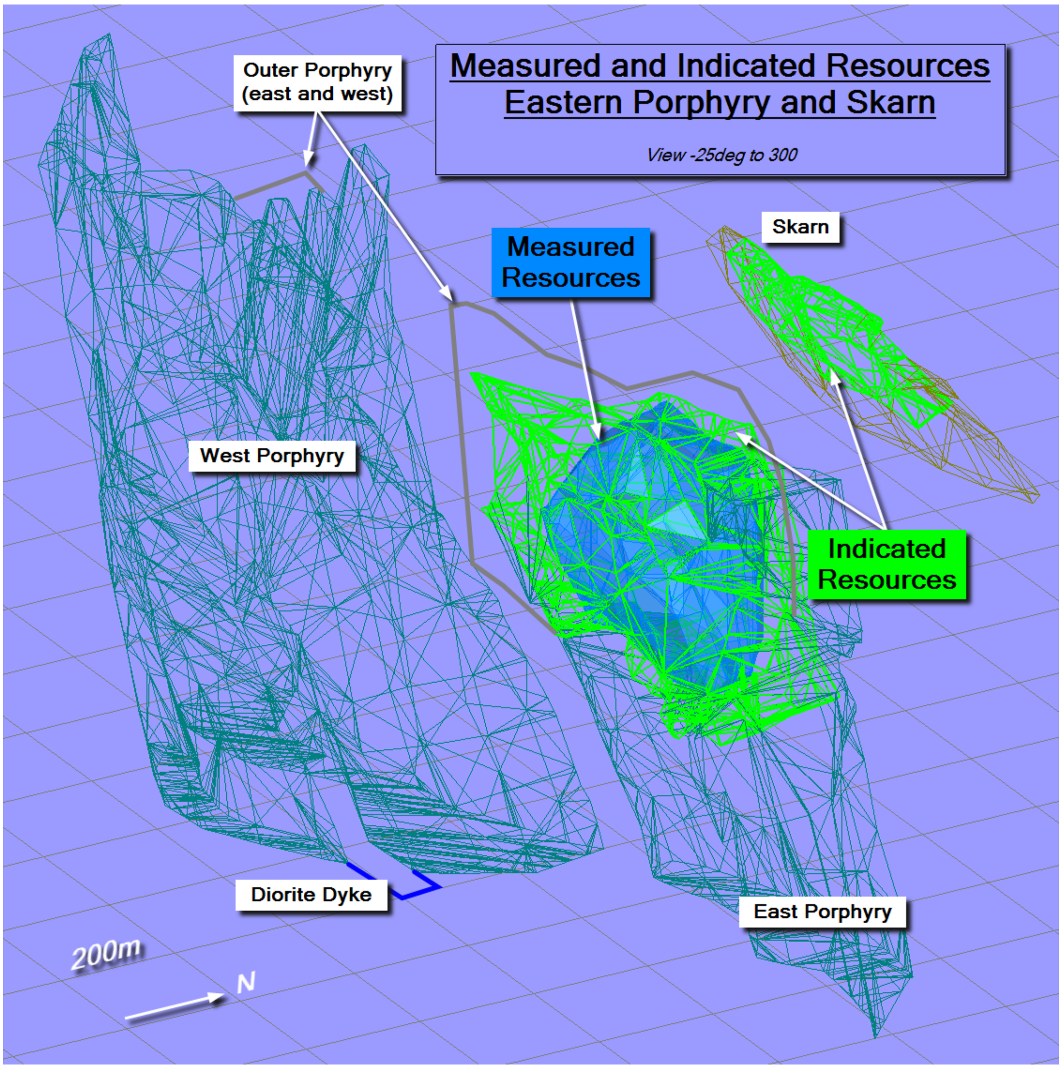
- The details on sample numbers, drill hole numbers and average distance from block centroids to samples were stored during the grade interpolation process. This information was plotted and utilised as a guide in determining the confidence in the resource estimation.

- Criteria for outlining volumes to be considered for Measured Resource classification (JORC 2012) were, where blocks are predominantly estimated:
  - With no fewer than 28 samples – the optimum number of samples recommended by the QG Quantitative Kriging Neighbourhood Analysis study.
  - With samples selected from no fewer than 4 drillholes.
  - With the average distance of samples selected is no greater than 100m.
  - From the first interpolation run/pass.
  - Statistics for adherence to these criteria can be seen in the “Estimation and modelling techniques” section (above).
- Criteria for outlining volumes to be considered for Indicated Resource classification (JORC 2012) were, where blocks are predominantly estimated with:
  - No fewer than 25 samples (except for eastern edge of the East Porphyry where sample numbers are no fewer than 15).
  - Samples selected from no fewer than 4 drillholes (except for eastern and western edges of the East Porphyry where hole numbers are no fewer than 3).
  - Statistics for adherence to these criteria can be seen in the “Estimation and modelling techniques” section (above).




**Weightings of drilling programmes on Measured and Indicated Resources. Most of these resources are estimated from data heavily weighted with TCS composites.** ***[Note: The addition of the EMM 2018 holes into this evaluation would not impact materially on the observations, interpretations stated and the actions undertaken in classifying the resource***

| Criteria | Explanation |
|---|---|
| | ***estimate.]***<br><br>Two triangulated solids were generated and used to re-block and code the resource model. The location of the Measured and Indicated Resources (JORC 2012) are depicted in the following figure. Resources outside of these triangulations and within the reporting volume (between 229050mE and 230600mE, 494800mN and 495920mN and above 000mRL) are classified as Inferred Resources (JORC 2012).<br><br><br><br>**Measured and Indicated Resource locations (JORC 2012).** |
| Audits or reviews. | There have been no external reviews or audits to the Beutong 2019 Resource Estimate. |
| Discussion of relative accuracy/ confidence | In classifying the 2019 resource estimate H&A addressed the following data quality and geological/grade continuity issues and the classification represents the risk profile for the mineral resources at Beutong (relative accuracy and confidence), with the material classified as Inferred Resources harbouring the highest risk and Measured the lowest:<br><br>• Geological and grade continuity: Domain contacts and grade ranges for volumes |

| Criteria | Explanation |
| --- | --- |
| | considered for Measured and Indicated Resources had to be well defined and consistent/predictable by drill holes and surface data.<br>• Assay reliability: Only resources where grade interpolation is heavily weighted by samples from the FPT, TCS and EMM drilling data were considered for Measured and Indicated Resource Classification. The assay quality control data shows that these assay data are of adequate reliability, whereas the reliability of the HG assay data is unknown.<br>• Core recovery and sampling: Grade profiles of volumes where resources are heavily weighted by FPT (and HG) data were assessed against the profiles of adjoining volumes (where resources are heavily weighted by TCS and EMM data) as part of the consideration in assigning Measured and Indicated Classification to these volumes. The EMM and TCS data is shown to have higher core recovery percentages and deemed to have more appropriate core handling and sampling protocols than the other data.<br>• Interpolation reliability: Only those resources that were estimated from the interpolation strategy that utilises parameters designed to maximize grade reliability from close-spaced data were considered for Measured and Indicated Classifications (the "First Pass"). Additional considerations regarding sample and drillhole numbers, average distance to, and spatial coverage of composites (selected for interpolation) were employed to differentiate between volumes assigned to Measured or Indicated Resources.<br>A systematic and rigorous process was employed to define volumes for classifying Measured and Indicated Resources from the Resource Model. Validation of the resource classification shows that:<br>• For Measured Resource Material:<br>    o 65% is weighted by TCS (and EMM) data, 34% by FPT data and 1% by HG data.<br>    o 87% of volume is estimated from the First Pass interpolation run.<br>    o An average of 27.4 composites used in estimating block grades.<br>    o An average of 4.6 drillholes accessed for composites used in estimating block grades.<br>    o Average distance of 74m to composites used in estimating block grades.<br>• For Indicated Resource Material:<br>    o 75% is weighted by TCS (and EMM) data, 23% by FPT data and 2% by HG data.<br>    o 54% of volume is estimated from the First Pass interpolation run.<br>    o An average of 24.9 composites used in estimating block grades.<br>    o An average of 4.4 drillholes accessed for composites used in estimating block grades.<br>    o Average distance of 128m to composites used in estimating block grades<br>• For Inferred Resource Material:<br>    o 4% of volume is estimated from the First Pass interpolation run. |

| Criteria | Explanation |
|---|---|
| | o An average of 23 composites used in estimating block grades.<br>o An average of 3.6 drillholes accessed for composites used in estimating block grades.<br>o Average distance of 264m to composites used in estimating block grades<br>These statistics verify that the classification strategy was implemented as intended and transparently portray the level of confidence underpinning the resource classification.<br><br>The following evaluation programmes are indicative of what is required in increasing the size of and confidence in the resources at Beutong. H&A in discussion with EMM proposes these as it is the opinion of both parties that each or both of these actions are required in advancing the project towards definitive feasibility studies.<br><br>The Beutong mineralisation is interpreted to extend to the east, west and below the limits of the 2019 Resource Model volume. Expansion of the resource is expected with holes targeted in these areas. Of note, the immediate eastern extension of the skarn mineralisation transgresses the Hutan Lindung area (protected forest) where permitting is required to undertake any exploration activities and the prospectivity to the east of the east porphyry is seen as limited as the barren phreatomagmatic breccia is interpreted to dominate in this area.<br><br>Drilling within and in proximity to the current Indicated Resources will increase the volume of the resources available to be considered for Measured and Indicated Classification in future resource estimates (at the expense of the current Indicated and Inferred Resources). Close proximity drilling or twining of holes within the current Measured Resources will be required to obtain data for robust change of support analysis which can be utilised for more robust design of grade interpolation parameters and for the evaluation of suitable mining parameters and protocols for defining, delineating and extracting ore material.<br><br>H&A suggests the following approaches be considered to expand and upgrade the mineral resources at Beutong:<br><br>• Holes be drilled to test for lateral extension of mineralisation (E-W) to depths of up to 500m below surface:<br>o Porphyry Mineralisation: 100m step-out section drilling. Two angled holes per section designed to intercept mineralisation between 150m and 200m and again between 400m and 500m depth (approximately 1200m per section).<br>o Skarn Mineralisation: 50m-100m step-out section drilling. Two angled holes per section designed to intercept mineralisation between 100m and 150m and again between 200m and 250m depth (approximately 700m per section).<br>Sequential step-out continuation and extent will be depended on results obtained from previously drilled holes within the programme. |

| Criteria | Explanation |
|---|---|
| | • Holes drilled to test for vertical extension of the mineralisation:<br>  ○ Porphyry Mineralisation: the current resource is interpreted to extend to below 1000m from surface, between 200m and 300m beyond the deepest drill intercepts. Two strategies should be considered, reflecting the risk associated with the reliability of the current model projection. The first is to drill to intercept the current model at depth and extend beyond the interpreted model (holes >1500m in length, and confirming current model plus extending 200-300m). The second and higher risk strategy is to drill to intercept beyond the current model extent (hole >2000m in length, and confirming current model plus extending 400-500m). Both the BWP and BEP would require two to three holes to confidently establish vertical continuation across the length of the current resource.<br>  ○ Skarn Mineralisation: Three angled holes >550m in length designed to intercept mineralisation between 150m and 200m down-dip from current resource model.<br>• To convert the current Indicated Resources to Measured Resources the drilling density within the Indicated Resource volume will need to be increased by an estimated 50% in the BEP and 100% in the skarn mineralisation and, by extending these holes beyond the Indicated volume, will enable the conversion of Inferred Resources to Indicated Resources at BEP. H&A suggests that, if converting mineralisation to higher classification is required for the advancement of the project then:<br>  ○ For the BEP: drilling between 11 and 15 holes averaging at least 600m, but extending to >800m to convert Inferred to Indicated Resources.<br>  ○ For the skarn mineralisation: drilling between 15 and 20 holes averaging 250m. due to the planar nature of the skarn mineralisation additional 10 to 15 holes averaging 250m will be required to convert Inferred Resources to Indicated Resources<br>• Close spaced or twin holes for change of support and associated analyses:<br>  ○ For the BEP: two holes averaging 500m in length.<br>  ○ For the skarn mineralisation: three holes averaging 250m in length.<br><br>**Technical Recommendations**<br><br>The following activities directed at reducing risk and improving the confidence in the input data utilised in generating future estimates of the copper resources at Beutong are recommended by H&A:<br><br>• Update Access$^{TM}$ database with edits undertaken in validating the 2019 Resource Dataset.<br>• Drillhole locations and TIN domains are corrected with the new collar and topographic data from the GeoIndo Survey Services survey and the model re-run prior to undertaking any definitive engineering studies. |

| Criteria | Explanation |
|---|---|
| | • Adjusted downhole survey data to be entered into EMM Access™ database.<br>• Correct the 633 assay values within the EMM Access™ database to reflect ITS report results.<br>• Update EMM Access™ database with geology logs for entire FPT holes BC005-02A and BC025-03A and TCS holes BEU0600-03 and BEU0700-06 and part holes for further 73 holes.<br>• Enter clay logging into EMM Access™ database and complete the clay logging by including holes BC011-01A and BC025-03 from the FPT drilling.<br>• Complete compilation of the recovery logging data within the EMM Access™ database.<br>• Locate and evaluate the missing FPT laboratory QC assay data.<br>• Update the EMM Access™ database with laboratory QC assay results.<br>• Acquire and assess sizing data for batches showing poor repeatability in the duplicate pairs QC dataset.<br>• Investigate the precision issues noted in the FPT field standards assay data.<br>• Undertake a programme of Referee Laboratory Assays (select samples for check assays with the aid of information in the H&A QC report that highlight batches of concern regarding current assay reliability).<br>• Investigate effect of preferential loss during drilling, handling and sampling of core and qualify risk associated with using the suspected low biased FPT data, particularly at near economic cut-off grades.<br><br>Some of these recommendations will require data from new drill core and this requirement should be considered in the design of any future drilling at Beutong. |

**List of Abbreviations specific to Beutong Resource Estimate Explanatory Notes**

| Abbreviation | : | Meaning |
|---|---|---|
| % | : | Percent |
| %Av | : | Percent average |
| %Difference | : | Percentage difference (duplicate - original)/original |
| %MPD | : | Percent Mean Paired Difference = (duplicate - original)/Average(original and duplicate) |
| %RSD | : | Percentage Relative Standard Deviation = StdDev/Average *100 |
| & | : | and |
| * | : | any and any length of characters |
| / | : | divider/divisor |
| @ | : | at |
| \|x\| | : | absolute value (of x) |
| ~ | : | approximate |
| < | : | less than |
| = | : | equals |
| > | : | greater than |
| ± | : | plus or minus |

| Abbreviation | : | Meaning |
|---|---|---|
| °C | : | Degrees Celsius |
| µm | : | micron |
| 3:1 $HCl:HNO_3$ | : | Aqua Regia |
| 3D | : | Three Dimension |
| A$ | : | Australian currency |
| A.B.N. | : | Australian Business Number |
| A.C.N | : | Australian Company Number |
| AAMPD | : | Average Absolute Percent Mean Paired Difference = average(\|(duplicate - original)/Average(original and duplicate)\|) |
| AAS | : | Atomic absorption spectroscopy - method for measuring element concentrations in solution (assays) |
| Access™ | : | Access (Trade Marked) computing software |
| Ag | : | Silver |
| AIG | : | Australian Institute of Geoscientists |
| AIM | : | formerly the Alternative Investment Market - a sub-market of the London Stock Exchange |
| AMDAL | : | Environmental Impact Assessment |
| APL | : | Areal Penggunaan Lain (Forest Other Purposes) |
| ASL | : | above sea level |
| Au | : | Gold |
| AusIMM | : | Australian Institute of Mining and Metallurgy |
| B.App.Sc. MSc. MAIG | : | Bachelor Applied Science, Master of Science, Member Australian Institute of Geoscientists |
| BD | : | bulk density |
| BEP | : | Beutong East Porphyry |
| Beutong | : | Beutong Copper-Gold-Silver-Molybdenum Mineralisation, Prospect, Project or Area |
| BGS | : | British Geological Survey |
| BIC | : | Beutong Intrusive Complex |
| BKPM | : | Indonesian Capital Coordinating Board |
| BRPL | : | Beutong Resources Pte. Ltd. |
| BSc.(Hons) | : | Bachelor Science with Honours |
| BWP | : | Beutong West Porphyry |
| CIM | : | Canadian Institute of Mining, Metallurgy and Petroleum |
| cm | : | centimetre |
| Co | : | Cobalt |
| CoW | : | Contract of Work |
| CRM | : | Certified Reference Material |
| csv | : | comma separated value file |
| Cu | : | Copper |
| CuEq | : | Copper Equivalent |
| DBD | : | dry bulk density |
| Dept. | : | department |

| Abbreviation | : | Meaning |
|---|---|---|
| Doc | : | document |
| DPOs | : | direct purchase order |
| DTM | : | digital terrain model |
| dxf | : | drawing exchange file |
| E | : | East |
| E | : | East |
| EMM | : | PT Emas Mineral Murni |
| ESDM | : | Department of Energy and Mineral Resources |
| et al. | : | and others |
| etc. | : | Etcetera |
| E-W | : | East-West |
| FA30 | : | 30g charge; Fire Assay: AAS detection |
| Fe | : | Iron |
| FeO | : | Iron Oxide |
| FPT | : | Freeport McMoRan Copper & Gold Inc. and International Mining Investments LLC affiliation |
| Freeport | : | Freeport McMoRan Copper & Gold Inc. and International Mining Investments LLC affiliation |
| g | : | gram |
| g/cc | : | unit for measurement of specific gravity - grams per cubic centimetre (also can be expressed as $T/m^3$) |
| g/t | : | grams per metric tonne - a measurement of element concentration, interchangeable with ppm |
| GA31 | : | triple acid digest: AAS detection |
| GPS | : | Global Positioning System |
| Grade | : | Quantity of metal per unit weight of host rock. |
| GT | : | Grade Tonnage |
| H&A | : | Hackman and Associates Pty Ltd |
| ha. | : | hectare(s) |
| $HCl/HNO_3/HClO_4$ | : | triple or three acid |
| HG | : | Highlands Gold Indonesia |
| hr | : | hour |
| i.e. | : | that is |
| IC01 | : | aqua regia digest: ICP-OES detection |
| IC30 | : | triple acid digest: volumetric detection |
| ICP-MS | : | Inductively coupled plasma mass spectrometry - method for measuring element concentrations in solution (assays) |
| ICP-OES | : | Inductively coupled plasma optical emission spectrometry - method for measuring element concentrations in solution (assays) |
| Inc. | : | Incorporated |
| incl. | : | including |

| Abbreviation | : | Meaning |
|---|---|---|
| IP | : | Induced Polarization - involves transmitting a current into the ground using two electrodes and measuring the voltage between another pair of electrodes. |
| ISO | : | International Organization for Standardization |
| ITS | : | PT Intertek Utama Services |
| IUP | : | Mining Business License (Izin Usaha Pertambangan). |
| JORC 2012 | : | Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. |
| JV | : | Joint Venture |
| K | : | Potassium |
| kg | : | kilogram |
| KGL | : | Kalimantan Gold Corporation Limited |
| km | : | kilometre |
| $km^2$ | : | kilometre squared |
| KP | : | Mining Authorization (Kuasa Pertambangan) - now defunct. |
| Lat. | : | Latitude |
| LIDAR | : | Lidar is a remote sensing technology that measures distance by illuminating a target with a laser and analyzing the reflected light |
| LLC | : | Limited Liability Company |
| Long. | : | Longitude |
| Ltd. | : | Limited |
| M | : | million |
| m | : | metre(s) |
| Ma | : | million years ago |
| MAIG | : | Member of Australian Institute of Geoscientist |
| Max | : | maximum |
| MBD | : | Main Beutong Diorite |
| mE | : | metres East |
| mesh | : | grid mesh (measurement of aperture) |
| MIBC | : | Methyl Isobutyl Carbinol |
| Mil | : | Million |
| Min | : | minimum |
| Minesight™ | : | Minesight (trade Marked) mining industry software |
| mm | : | millimetres |
| MMR | : | PT Media Mining Resources |
| mN | : | metres North |
| Mo | : | Molybdenum |
| MODA | : | McArthur Ore Deposit Assessments |
| MOHLR | : | Ministry of Law and Human Rights |
| MPD | : | Mean Paired Difference (expressed as a percent) |
| MPRD | : | Mean Paired Relative Difference (expressed as a percent) |
| MT | : | Million Tonnes (metric) |
| MW | : | megawatt |
| N | : | North |

| Abbreviation | : | Meaning |
|---|---|---|
| N | : | North |
| NB. | : | Please note |
| NE | : | Northeast |
| NE-SW | : | Northeast-Southwest |
| NI 43-101 | : | "Canadian National Instrument 43-101 - Standards of Disclosure for Mineral Projects" defines and regulates public disclosure in Canada for mineral projects and it relies on resource and reserve classification as defined by CIM. |
| NI 43-101F1 | : | Form 43-101F1 Technical Report |
| N-S | : | North-South |
| NW | : | Northwest |
| NW-SE | : | Northwest-Southeast |
| Pb | : | Lead |
| pers. Comm. | : | personal communication |
| pH | : | measure of the acidity or basicity of an aqueous solution |
| PLN | : | PT Pelayanan Listrik Nasional |
| PMA | : | Penanaman Modal Asing (foreign investment company) |
| ppm | : | parts per million - a measurement of element concentration, interchangeable with grams per metric tonne |
| PQ PQ3 HQ HQ3 NQ NQ3 BQ | : | Diamond Drill Hole Core sizes |
| PT | : | Perseroan Terbatas ("Limited Liability") Company |
| Pte. Ltd | : | Propriety Limited Company |
| Pty. Ltd | : | Propriety Limited Company |
| Py | : | Pyrite |
| QA | : | Quality Assurance |
| QC | : | Quality Control |
| QG | : | QG Group Pty. Ltd. (formerly Quantitative Group Pty. Ltd.) |
| QKNA | : | Quantitative Kriging Neighbourhood Analysis |
| Q-Q | : | Quartile - Quartile (plot) |
| Rd. | : | Road |
| RE | : | Reference to |
| RI | : | Republic of Indonesia |
| RL | : | reduced level (relative to vertical datum - usually ASL - Average Sea Level) |
| ROM | : | Run-Of-Mine (grade) |
| RQD | : | Rock Quality Descriptor |
| RTI | : | Rio Tinto Indonesia |
| S | : | South |
| Sb | : | Antimony |
| SEDAR | : | System for Electronic Document Analysis and Retrieval (Canadian - www.sedar.com) |
| SFS | : | Sumatra Fault System |
| SG | : | Specific Gravity (mass/volume) |

| Abbreviation | : | Meaning |
|---|---|---|
| Si | : | Silica |
| SOP | : | Standard Operating Procedure |
| StdDev | : | Standard Deviation |
| T | : | metric tonnes |
| $T/m^3$ | : | Metric tonnes per cubic metre |
| TCS | : | Tigers Copper Singapore No 1 Pte. Ltd. |
| TIN | : | Triangulated Irregular Network (computer solid model shape that domains features of projects in 3D) |
| TM | : | Trade Mark |
| TRC | : | Tigers Realm Copper Pty. Ltd. |
| TRM | : | Tigers Realm Metals Pty. Ltd. |
| UKL-UPL | : | environmental management and environmental monitoring program |
| US$ | : | United States of America Currency |
| UTM | : | Universal Transvers Mercator (Cartesian coordinate grid system) |
| vol% | : | Percentage of total volume |
| vs | : | versus |
| Vulcan™ | : | Vulcan (Trade Marked) mining industry software |
| W | : | West |
| WA | : | Western Australia |
| WGS84, UTM Zone 47N | : | Spheroid projection and grid datum for the geographical location of data at Beutong |
| WNW | : | West-Northwest |
| yr | : | year |
| Zn | : | Zinc |