



ASX ANNOUNCEMENT

29 November 2022

Stavelly Copper-Gold Project – Exploration Update

## Stavelly to Test Cayley Lode Depth Extensions Following New Interpretation Showing High-Grade Copper and Gold Mineralisation Transitioning Towards a Porphyry

*Review suggests that mineralisation at the Cayley Lode is transitioning from ‘high-sulphidation’ to ‘intermediate sulphidation’ high-grade copper and gold in the south-east*

- Significant new porphyry target established immediately SE of the Cayley Lode deposit following a recent review of data and drill core by Dr Steve Garwin, in conjunction with site-based personnel. Dr Garwin is Chief Technical Adviser to SolGold Plc.
- The review has identified that the mineralisation is transitioning in character from a distal ~250°C to 300°C high-sulphidation assemblage with characteristic copper sulphide minerals enargite and covellite, to a hotter ~400°C to 450°C intermediate-sulphidation assemblage with chalcopyrite-hematite-specularite-and magnetite.
- While the sulphide assemblage of mineralisation at the Cayley Lode has previously been noted as zoned spatially and temporally, the intermediate-sulphidation assemblage demonstrated by drill holes SMD173 and SMD182 (the last and deepest drill-holes on the Cayley Lode) are interpreted as reflecting temperatures of deposition/thermal stability that would be considered proximal to the causative porphyry long targeted by Stavelly.
- Of significance, the transition to an intermediate-sulphidation assemblage is also apparently associated with a significant increase in the relative gold grade where gold grades are approaching equivalence to copper grades. For example, SMD182 had an upper intercept<sup>1</sup> of:
  - 10.4m at 4.34% Cu and 3.17g/t Au and 11g/t Ag from 421m drill depth, including
    - 4.9m at 6.74% Cu, 6.45g/t Au and 19g/t Ag from 426m drill depth
- A range of mineral and element ratios (Cu/Zn, chalcopyrite/pyrite, Cu/S, Ag/Pb and K/Na) assessed by Dr Garwin all “vector towards to a copper-gold-silver rich core in the south-eastern part of the [Cayley] Lode with potential to host a porphyry cupola [the top of a porphyry] near holes SMD159, 160-163, 173 and 182.”
- Stavelly Minerals is planning to drill a wide-spaced (150m-spaced pierce point) panel of six diamond drill-holes to extend the Cayley Lode down-plunge with the objective of confirming the further transition of high-grade copper-gold mineralisation to that hosted by the causative porphyry. This program will commence in January 2023.

<sup>1</sup> See ASX announcement 27/04/2022

Stavely Minerals Limited (ASX Code: **SVY** – “Stavely Minerals”) is pleased to advise that it is preparing to embark on a significant new phase of exploration activity at its 100%-owned **Stavely Copper-Gold Project** in Western Victoria (Figure 1) after completing a review of regional and near-resource discovery opportunities

Stavely Minerals Executive Chair and Managing Director, Mr Chris Cairns, said: *“Following on from our recent review of regional exploration opportunities for the upcoming exploration season, we were pleased to host highly respected exploration consultant Dr Steve Garwin at site to review the Thursday’s Gossan/Cayley Lode data and drill core.*

*“Dr Garwin’s insights have assisted the site team to recognise a systematic zonation of sulphides in the high-grade copper-gold mineralised structures which has provided us with an exciting new exploration direction based on targeted drilling to pursue the Cayley Lode at depth to the south-east.”*

*“This south-eastern plunge already represented a valid and very exciting near-resource exploration target given the increasing width, grade and tenor of the mineralisation in our last few deeper drill-holes. We have also now recognised that the mineral assemblage in these last few, and so far deepest, drill-holes into the Cayley Lode during the resource drill-out show an increase in temperature of mineral formation which, if it continues, should bring us towards the causative porphyry.”*

*“It is with great anticipation now that we are planning to drill a number of wide-spaced diamond drill-holes to further ‘walk the mineralisation down’ below the base of existing drilling at approximately 380m below surface and test for the continuation of the Cayley Lode down to approximately 700m below surface. We expect that it is likely the mineralisation will transition further into porphyry-style copper-gold mineralisation.”*

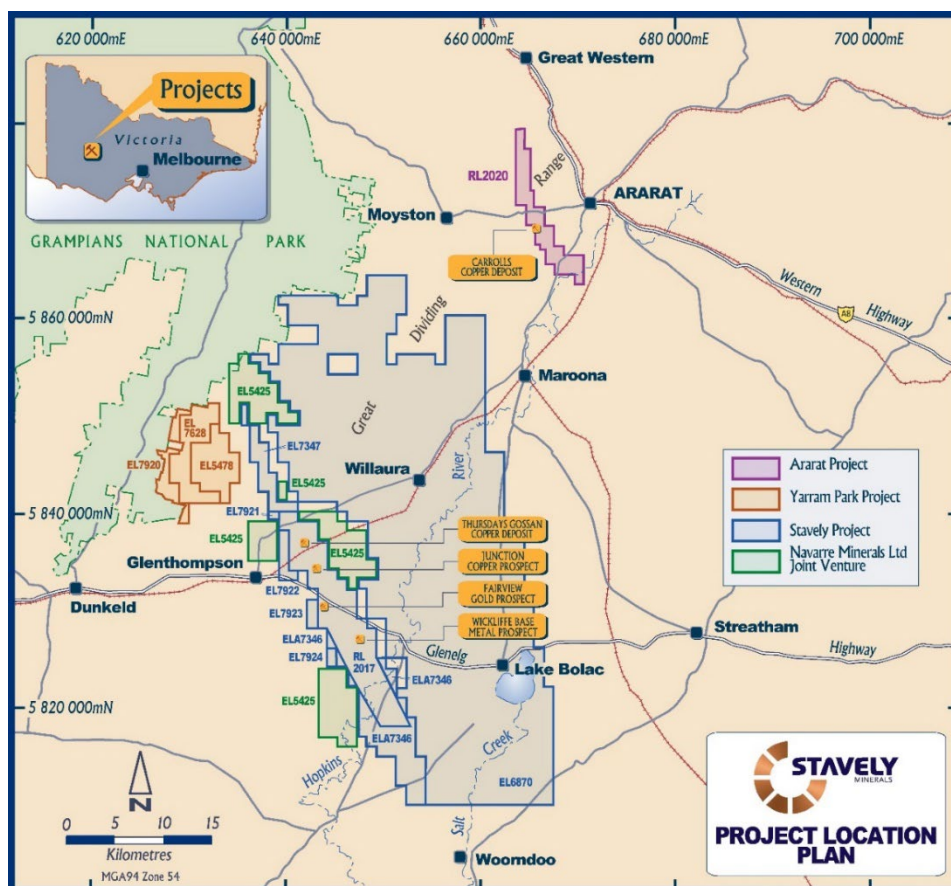


Figure 1. Stavely Project location map.

### A Summary

For non-technical shareholders and their advisers, the spatial and temporal distribution of various copper sulphide species including chalcopyrite, bornite, chalcocite, tennantite-tetrahedrite, covellite, digenite and enargite, as well as associated minerals, can be generalised as mapping out a progression from hotter to cooler temperatures of deposition.

By extending drilling into the hotter portions of the hydrothermal mineralising system, it is intended to progressively drill towards the causative porphyry intrusion at depth with the objective of discovering a well-mineralised copper-gold porphyry deposit. In detail, the science described below is more complex, but the indicators we have observed to date are considered robust.

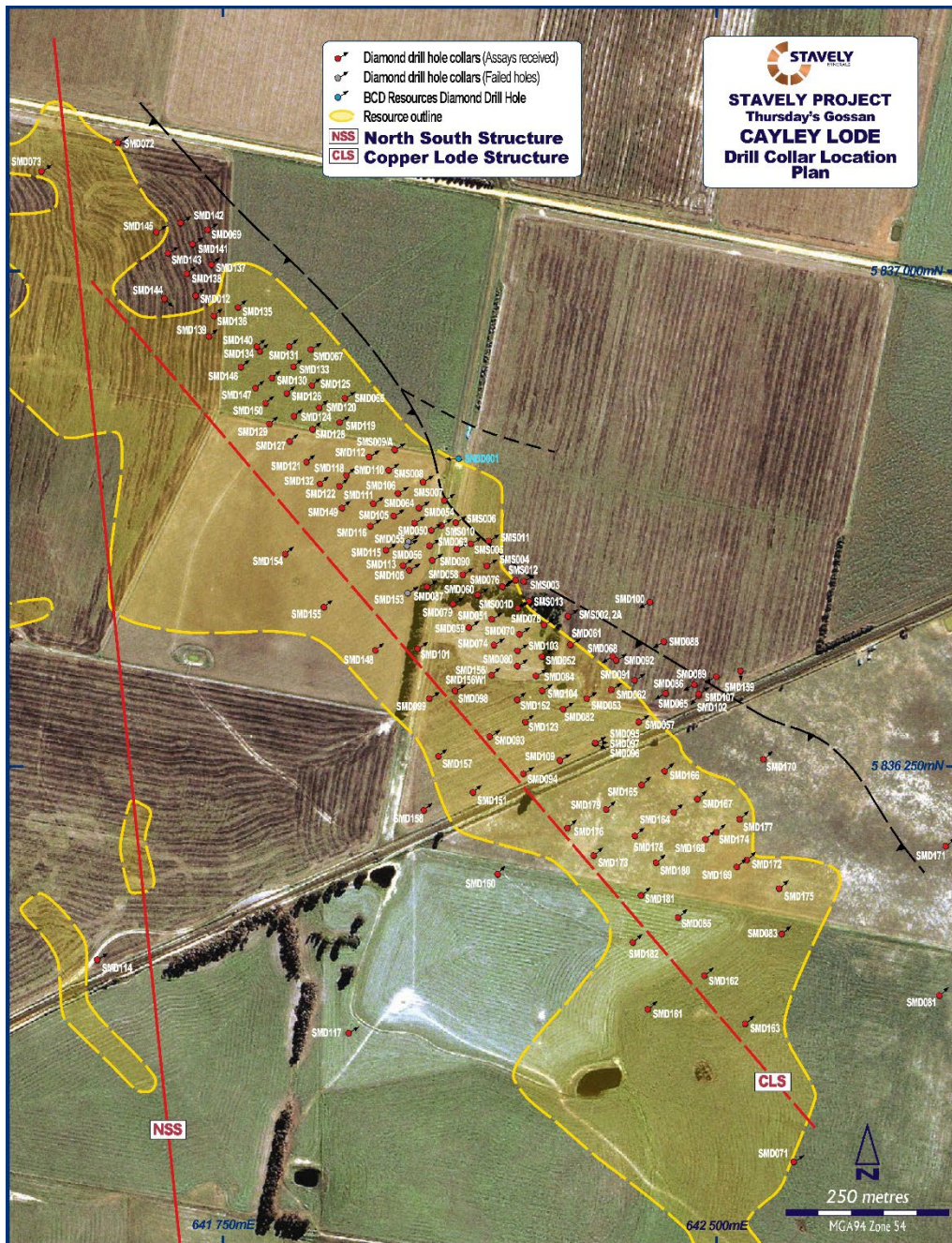
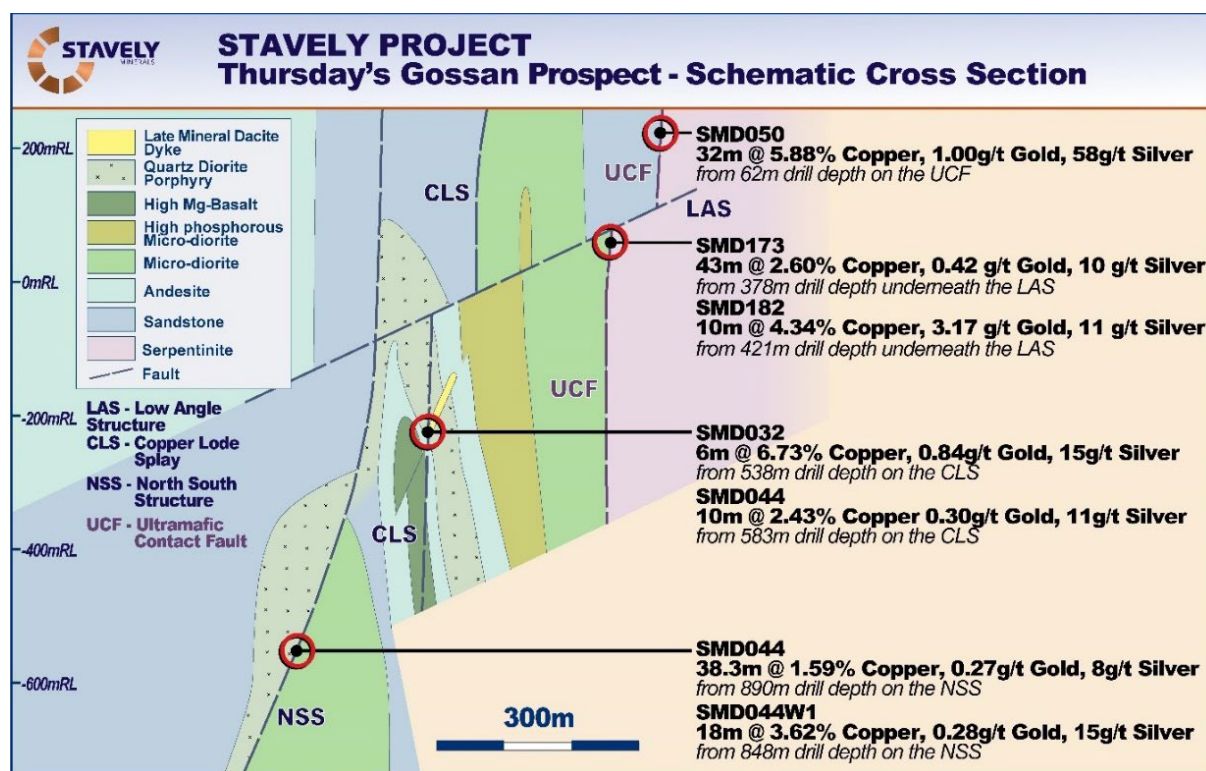


Figure 2. Cayley Lode drill hole location plan.

## The Rocks

The schematic cross-section in Figure 3 is used to illustrate the positions of drill intercepts with distinct variations in mineral and sulphide assemblage that will be described below, progressing from the earliest drilled to the last drilled hole to date – SMD182.

It should be noted that, while the respective drill intercepts are hosted on three different structures – the ultramafic contact fault (UCF, host to the Cayley Lode), the copper lode splay (CLS) and the north-south structure (NSS) – it is the mineral assemblage of each that is demonstrating thermal progression from a distal to a porphyry-proximal setting. It is possible that the system is driven by more than one porphyry phase and that there is temporal overprinting of mineralisation phases.

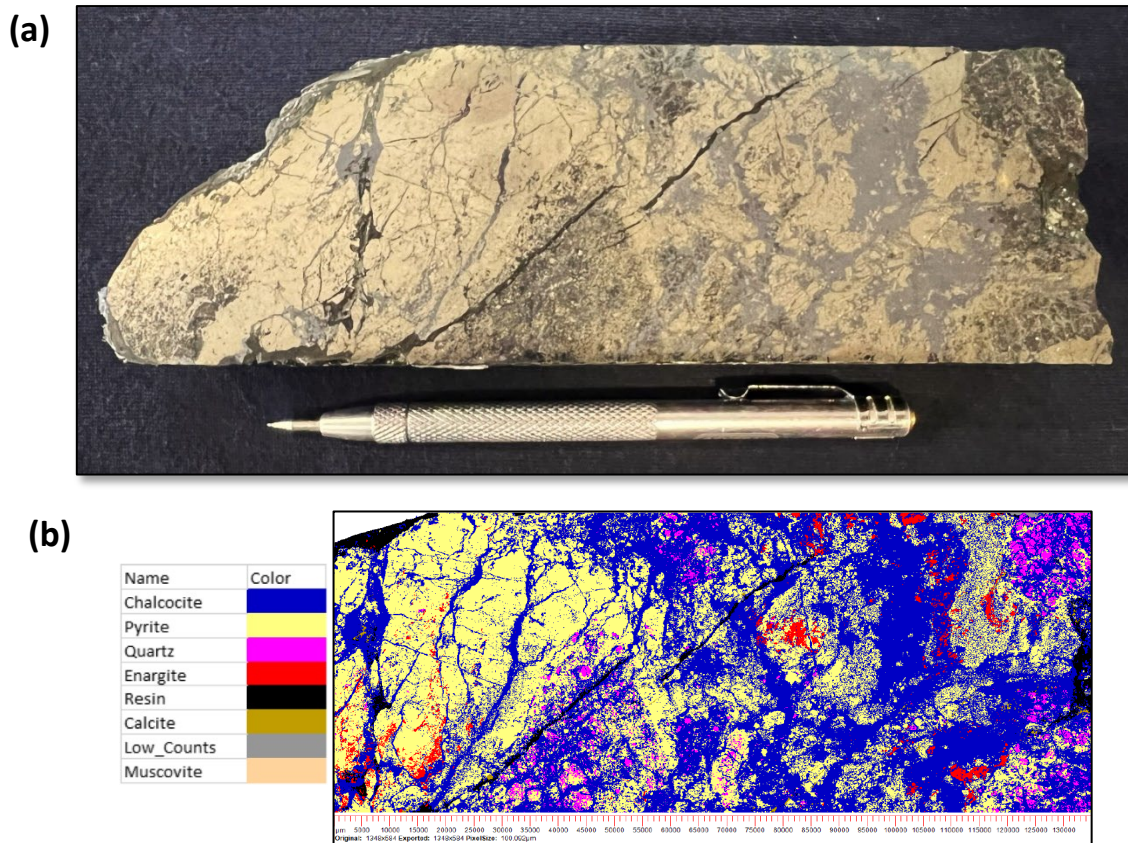


**Figure 3. Distribution of selected drill intercepts on three structures, the ultramafic contact fault (UCF) – host structure to the Cayley Lode – the copper lode splay (CLS) and the north-south structure (NSS).**

### SMD032, 542.5m drill depth

SMD032 intercepted 6m at 6.73% Cu, 0.84g/t Au and 15g/t Ag from 538m drill depth (see ASX announcement 19/01/2019).

Photo 1 (a) and (b) shows a cut face of drill core in (a) and a  $\mu$ XRF image of the sulphide species in the sample (b). This sample clearly demonstrates that the earliest sulphide was massive pyrite which was then veined, brecciated and infilled by abundant chalcocite and later enargite. Enargite is a characteristic high sulphidation copper-arsenic sulphide. It can be inferred that the enargite formed in cooler conditions. This can occur either at some distance away from the porphyry source, or as a late overprint as the entire system cools.

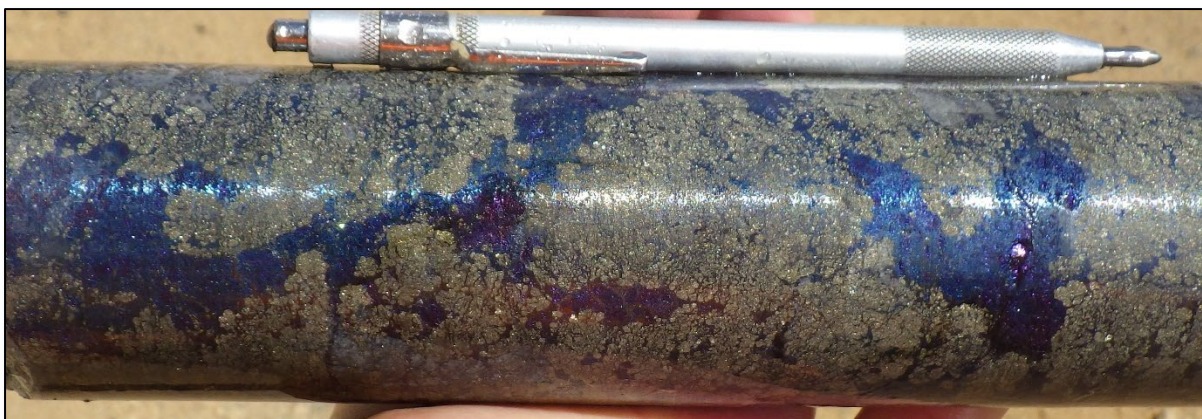


**Photo 1. (a) a cut face of HQ3 diameter drill core from 542.5m drill depth in SMD032 and (b) a µXRF image of the sulphide species in the same sample. Note the copper-arsenic sulphide mineral enargite in red.**

**SMD044W1 – 859.0m drill depth**

SMD044W1 was a wedge ‘daughter’ drill hole drilled to get a second intercept on the north-south structure at a depth of approximately 850m drill depth. SMD044W1 intercepted **18m at 3.62% Cu, 0.28g/t Au and 15g/t Ag** from 848m drill depth (see ASX announcement 23/04/2019).

The intercept demonstrated spectacular textures, again showing an early massive- to semi-massive pyrite phase, then brecciated and infilled by high-tenor copper sulphides bornite (purple), chalcocite (gun metal grey) and covellite (bright blue) with minor digenite, enargite and colusite also noted in petrology (Photo 2). Covellite, digenite, enargite and colusite are classic high sulphidation copper sulphides. Colusite is a copper-vanadium-arsenic sulphide with a type-locality / first identified from the Colusa Claim at Butte, Montana.



**Photo 2. Brecciated pyrite vein with bornite-covellite-chalcocite-digenite in-fill at 859.0m in SMD044W1, HQ3 diameter drill core – colusite ( $\text{Cu}_{13}\text{VAs}_3\text{S}_{16}$ ), digenite and enargite noted in petrology.**

### **SMD050 – 85.3m drill depth**

SMD050 was the discovery drill-hole into the Cayley Lode. In summary, the discovery history involved Stavely Minerals drilling a series of progressively deeper drill holes seeking to intercept the deep porphyry which was the Company's original conceptual target since before listing on the ASX.

By the time drill-hole SMD049 had been drilled to a depth of 1.8 kilometres, having ended in the barren core of a phase-2 porphyry (the QDP or quartz diorite porphyry), two of our consultants, Dr Scott Halley and Dr Greg Corbett, had recognised that the high-grade structurally-controlled mineralisation, as seen in previously described intercepts in SMD032 and SMD044W1, as being similar in character to those reported from the Butte, Montana and Magma, Arizona lode-style copper-gold-silver deposits.

Dr Halley suggested that a junior exploration company may be challenged to fund continued deep exploration and that the structurally-controlled high-grade copper-gold-silver mineralisation should be targeted closer to surface.

Stavely Minerals took that advice on-board and SMD050 was drilled to test the ultramafic contact fault near surface.

SMD050 intercepted **32m at 5.88% Cu, 1.00g/t Au and 58g/t Ag** from 62m drill depth (see ASX announcement 26/09/2019).

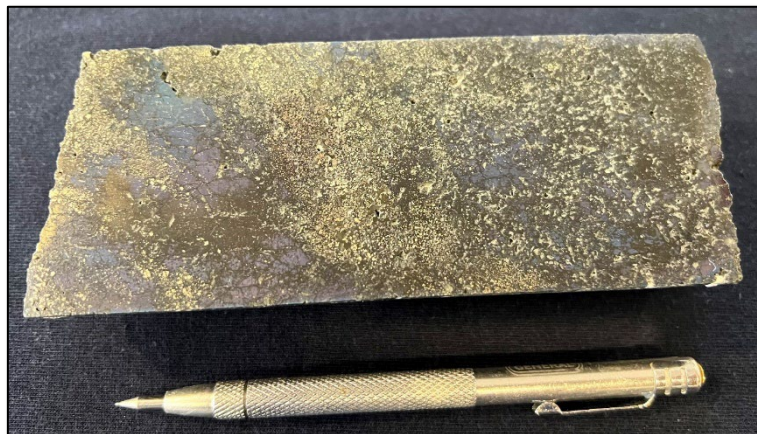
The intercept in SMD050 was dominated by early massive- to semi-massive pyrite (as previously described in SMD032 and SMD044W1 above) which was subsequently fractured, brecciated and infilled by abundant high-tenor copper sulphides bornite and hypogene chalcocite (Photo 3).



**Photo 3. An uncut face of HQ3 diameter drill core from 85.3m drill depth in SMD050. Note the dominant copper sulphides being bornite (purple) and chalcocite (gun metal grey).**

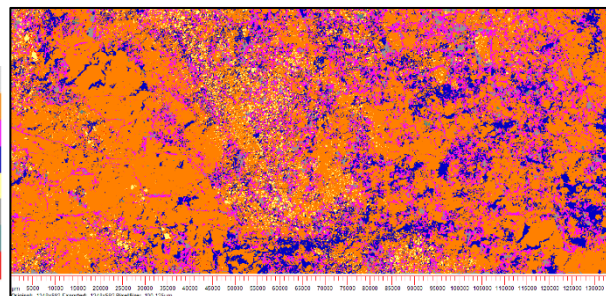
Photo 4 shows (a) a photo of a piece of cut half-core from 85.3m drill depth and, (b) a  $\mu$ XRF image mapping out the sulphide species in the cut face. This sample came from a sub-interval that returned **2m at 40% Cu, 3.00g/t Au and 517g/t Ag.**

(a)



(b)

Name	Color
Bornite	Orange
Quartz	Purple
Chalcocite	Blue
Pyrite	Yellow
Low_Counts	Grey
Chromite	Teal
Ni-bearing sulphide	Red



**Photo 4. (a) a cut face of HQ3 diameter drill core from 85.3m drill depth in SMD050 and (b) a  $\mu$ XRF image of the sulphide species in the same sample. Note the dominant copper sulphides being bornite and chalcocite.**

**SMD173 – 390.6m drill depth**

SMD173 was one of the last diamond drill holes completed during the Mineral Resource drill-out. Some investors and analysts had expressed some concerns that the Cayley Lode

mineralisation did not extend below the low-angle structure and SMD 173 was designed to confirm Stavely Minerals' strongly-held conviction that mineralisation did continue at depth.

SMD173 intercepted **43m at 2.60% Cu, 0.42g/t Au and 10g/t Ag** from 378m drill depth (see ASX announcement 08/03/2022). Of significance is that the character of the mineralisation in SMD173 had changed relative to intercepts from previous drill holes.

The early massive- to semi-massive pyrite phase was less evident and the interval was more dominantly characterised by jigsaw breccia to stockwork veins of quartz-chalcopyrite-hematite-specularite-magnetite (Photo 5). There is very little pyrite in this interval.



**Photo 5. Chalcopyrite-quartz-hematite fill jigsaw breccia in chlorite-silica altered microdiorite - SMD173, 390.6m drill depth, HQ diameter uncut drill core. Note the dominance of chalcopyrite and hematite and the almost total lack of pyrite as distinct from the previous samples in SMD032, SMD044W1 and SMD050.**

#### **SMD182 – 423.5m drill depth**

SMD182 was the last drill hole completed in the Mineral Resource drill-out. The objective of this drill-hole was to further test the down-plunge extent of the Cayley Lode beyond SMD173.

SMD182 intersected **10.4m at 4.34% Cu, 3.17g/t Au and 11g/t Ag** from 421m drill depth, including **4.9m at 6.74% Cu, 6.45g/t Au and 19g/t Ag** (see ASX announcement 27/04/2022).



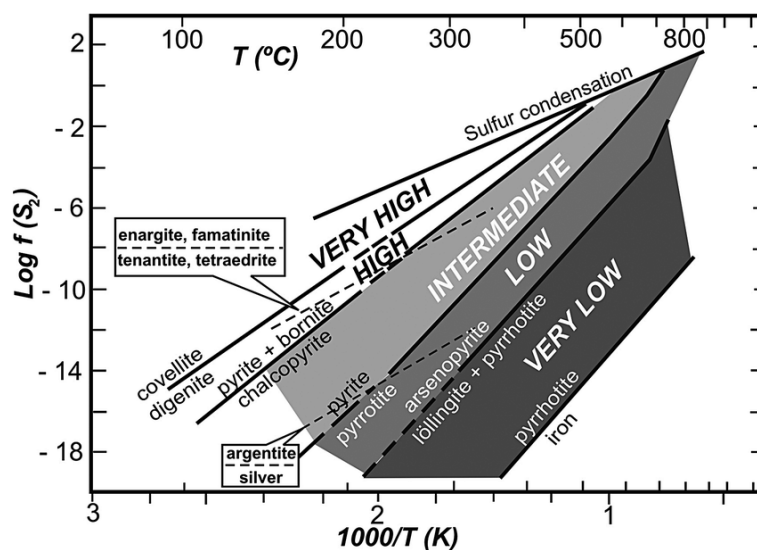
**Photo 6. Chalcopyrite-specularite-hematite-magnetite mineralisation - SMD182, 423.5m drill depth, HQ3 diameter ½ cut drill core.**



Two important observations from SMD182 are; 1) the clear association of hematite-specularite-magnetite-chalcopyrite with very little pyrite (Photo 6), and 2) the near parity of gold grade in g/t to the copper grade in %. While the mineral association will be discussed in the next section, the potential economic significance of an increase in gold grades with high-grade copper in this intercept cannot be overstated. As mentioned in the original announcement, more drilling is required to confirm this increase in relative gold grade but it is not unexpected given the change in the character of the mineralisation.

### The Science

When considering a hot supercritical fluid (so hot it is neither fluid nor gas, something in-between) leaving a porphyry intrusion laden with dissolved metals such as copper, sulphur, lead, zinc, silver and gold a couple of kilometres below surface under extreme temperatures and pressures, the thermodynamic / chemical conditions dictate which mineral or sulphide species are formed. Important factors determining which minerals and sulphides are formed include the temperature, the fugacity of sulphur ( $f_{S_2}$ ) and the fugacity of oxygen ( $f_{O_2}$ ). Fugacity, in this sense refers to the relative 'thermodynamic activity' of sulphur and oxygen respectively in the supercritical fluid. With the global study of many different types of porphyry deposits over many decades, and extensive simulations performed under laboratory conditions, the mineral and sulphide assemblage left behind by the fluid provides significant insights to the conditions of formation of these important ore-forming components.



**Figure 4. Mineral stability fields relative to temperature (top °C, bottom °K (kelvin)) and fugacity of sulphur ( $f_{S_2}$ ). The diagonal boundaries indicate mineral stability fields for typical low, intermediate and high sulphidation minerals. Adapted from Einaudi et al. (2003)<sup>2</sup>.**

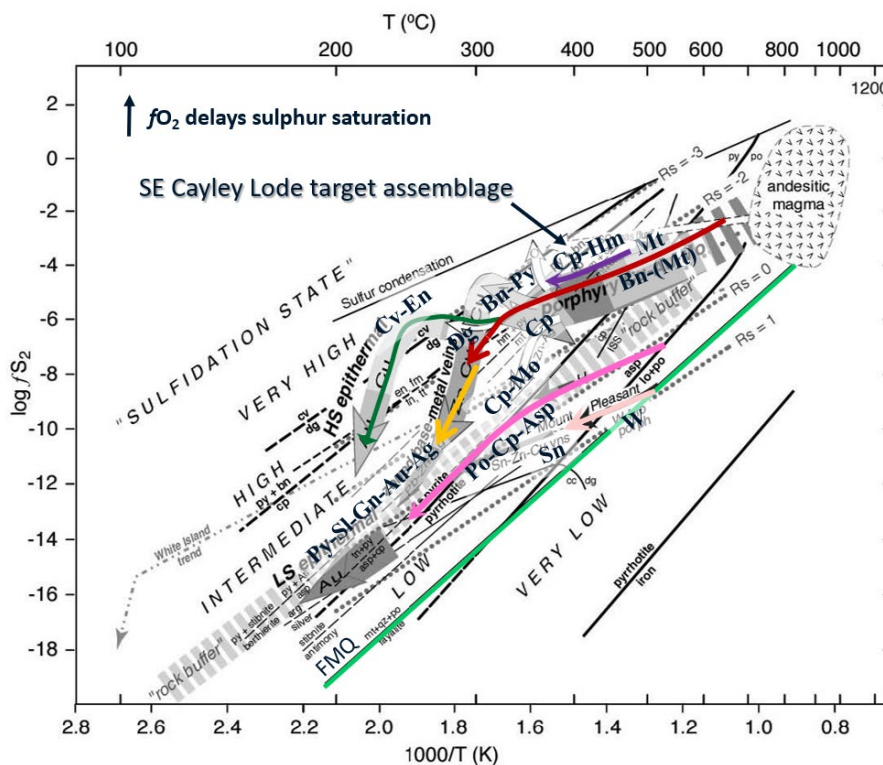
As a fluid leaves the porphyry, itself partially molten at say ~700°C, the fluid starts to cool and, depending on a number of variables including temperature,  $f_{S_2}$  and  $f_{O_2}$ , certain minerals and

<sup>2</sup> Einaudi, M. T., Hedenquist J. W., and Inan, E. E., 2003, Sulfidation state of fluids in active and extinct hydrothermal systems: Transitions from porphyry to epithermal environments, in Simmons, S. F., and Graham, I., eds., *Giggenbach Volume*, Special Publication 10, Society of Economic Geologists and Geochemical Society, p. 285-314.

sulphides will start to precipitate out of solution as the thermodynamic and chemical conditions cross certain thresholds. Extensive study of porphyry systems has resulted in the creation of multivariate plots showing which minerals precipitate under what conditions.

Figure 4 shows a 2-variate graph with the temperature on the X-axis and  $f_{S_2}$  on the Y-axis. The area of the plot is divided up into roughly diagonal sectors in which the minerals that have precipitated are characterised as (from low  $f_{S_2}$  to high  $f_{S_2}$ ) low sulphidation, intermediate sulphidation, and high sulphidation and shows stability boundaries for various common sulphides. For example, pyrrhotite is characteristic of low sulphidation conditions (often associated with reduced  $f_{O_2}$ ), there is a pyrite / pyrrhotite boundary near the low and intermediate sulphidation boundary, and there is a covellite / digenite boundary (both are copper sulphides) near the very high sulphidation boundary.

Consequently, if high sulphidation minerals and sulphides are observed, a generalised conclusion would be that the metal-carrying fluid had travelled some distance from the source intrusion (porphyry) and had cooled in relatively high  $f_{S_2}$  conditions. Conversely, if bornite in association with magnetite were observed, a generalised conclusion is that mineral association was precipitated in very hot conditions proximal to the porphyry source (Figure 5).



Mineral abbreviations: arg=argentite, asp=arsenopyrite, bn=bornite, cc=chalcocite, cp=chalcopyrite, cv=covellite, dg=digenite, en=enargite, fm=famatinite, gn=galena, hm=hematite, lo=loellingite, mo=molybdenite, mt=magnetite, po=pyrrhotite, py=pyrite, qz=quartz, sl=sphalerite, tn=tennantite, tt=tetrahedrite.

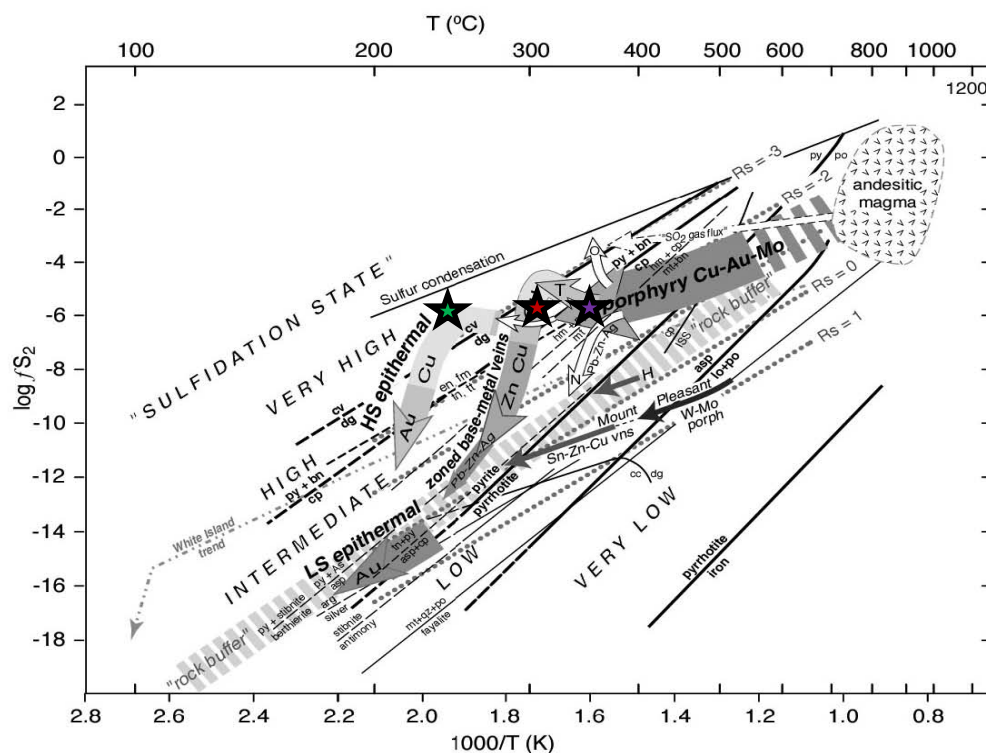
**Figure 5. Mineral stability fields relative to temperature (top °C, bottom °K (kelvin)) and fugacity of sulphur ( $f_{S_2}$ ) showing fluid pathways from an intrusive (porphyry) source. After S. Garwin, adapted from Einuadi (2003).**

When a diverse mineral / sulphide assemblage is observed with a spatial zonation, the transition from cooler to hotter mineral / sulphide assemblages can be utilised to vector towards the hotter inferred porphyry source. This is what is observed at the Cayley Lode and the wider Thursday's Gossan Prospect.

## Discussion

The drill intercepts discussed above are all located on the cross section in Figure 3.

The samples from drill holes SMD032 and SMD044W1 host the copper sulphide species enargite, covellite, digenite and colusite that reflect a high sulphidation assemblage formed at a temperature of  $\sim 250^{\circ}\text{C}$ . This assemblage would be formed some distance away from the source porphyry as no earlier, higher temperature minerals / sulphides are observed. These samples would plot on the green line in Figure 5 and in the vicinity of the green star shown in Figure 6.



Mineral abbreviations: arg=argentite, asp=arsenopyrite, bn=bornite, cc=chalcocite, cp=chalcopyrite, cv=covellite, dg=digenite, en=enargite, fm=famatinite, gn=galena, hm=hematite, lo=loellingite, mo=molybdenite, mt=magnetite, po=pyrrhotite, py=pyrite, qz=quartz, sl=sphalerite, tn=tennantite, tt=tetrahedrite.

**Figure 6. Mineral stability fields relative to temperature (top  $^{\circ}\text{C}$ , bottom  $^{\circ}\text{K}$  (kelvin)) and fugacity of sulphur ( $f_{\text{S}_2}$ ) showing fluid pathways from an intrusive (porphyry) source. After S. Garwin, adapted from Einuadi et al. (2003). The green star would reflect the relative position of samples from drill holes SMD032 and SMD044W1. The blue star would reflect the relative position of the sample from SMD050. The red star would reflect the relative position of samples from SMD173 and SMD182. The change in character has been from high sulphidation to intermediate sulphidation style of mineralisation. The progression demonstrates an increase in temperature of formation that is leading towards a potential porphyry source down plunge.**

The sample from SMD050 is dominated by copper sulphides bornite overprinted by hypogene chalcocite. It is interpreted that copper sulphide mineralisation in this sample formed at a temperature of ~300°C. This sample would plot on the red line on Figure 5 and in the vicinity of the red star in Figure 6.

The samples from SMD173 and SMD182 host a mineral sulphide assemblage dominated by chalcopyrite-hematite-specularite-magnetite. There is an almost total lack of pyrite. The assemblage in these drill holes is changing to a hotter intermediate sulphidation character with a temperature of formation >300°C. Importantly, SMD182, as the deepest drill hole down-plunge of this trend (Figure 5) also demonstrates an increase in the relative gold grade where the gold grade in g/t is approximating the copper grade in %. The samples in SMD173 and SMD182 would plot on the purple arrow in Figure 5 and in the vicinity of the purple star in Figure 6. The plunge of the Cayley Lode with SMD182 as the deepest drill hole along that plunge is shown in Figure 7.

During Dr Garwin's review of drill data from the Cayley Lode, the transition from high sulphidation through to intermediate sulphidation style of mineralisation is reflected in a number of ratios including:

- Copper / zinc,
- Copper / sulphur,
- Chalcopyrite / pyrite,
- Silver / lead, and
- Gold / copper

Dr Garwin's presentation to the Stavelly Minerals Board will be available on [www.stavelly.com.au](http://www.stavelly.com.au) under the Technical Data tab. Dr Garwin has consented to the representation of his work in this announcement.

Figure 8 shows a similar relationship interpreted to exist between the Cayley Lode and the inferred causative porphyry to that between the Lepanto high-sulphidation (enargite-luzonite) copper-gold deposit and the Far Southeast copper-gold porphyry at depth (Hedenquist et al., 2017)<sup>3</sup>. Lepanto and Far Southeast are located in northern Luzon, Philippines.

Stavelly Minerals intends drilling a panel of 6 diamond drill holes at 150m-spaced pierce points to test for the inferred causative copper-gold porphyry commencing in January 2023.

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<sup>3</sup> Hedenquist, J. W., Arribas, A.R., Aoki, M., (2017), Zonation of Sulfate and Sulfide Minerals and Isotopic Composition in the Far Southeast Porphyry and Lepanto Epithermal Cu–Au Deposits, Philippines, Resource Geology Vol. 67, No. 2: 174–196.

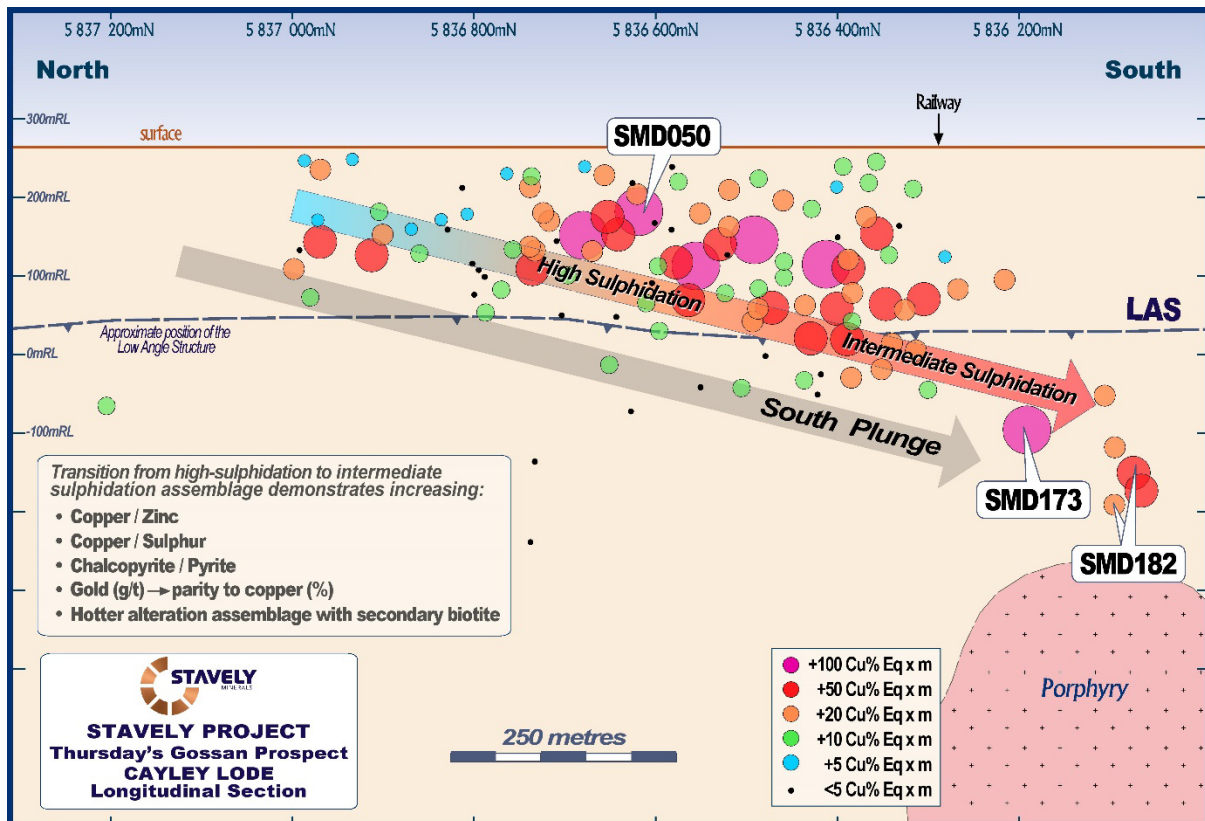


Figure 7. Cayley Lode long-section showing the plunge of mineralisation towards the southeast. The discovery hole SMD050 is the shallowest magenta circle while SMD173 and SMD182 are labelled. The inferred porphyry at depth is shown notionally below the plunge of the Cayley Lode.

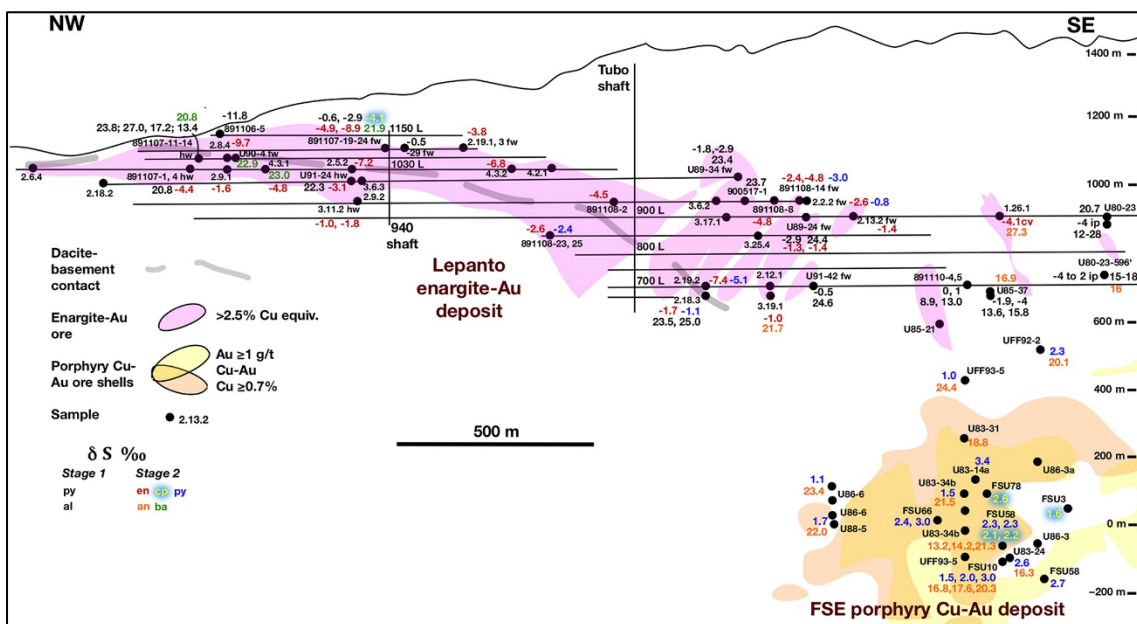


Figure 8. The spatial relationship between the Lepanto high-sulphidation copper-gold deposit and the Far Southeast porphyry located in northern Luzon, Philippines. From Hedenquist et al, 2017, Resource Geology.

Yours sincerely,



**Chris Cairns**  
**Executive Chair and Managing Director**

*The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Chris Cairns, a Competent Person who is a Fellow of the Australian Institute of Geoscientists and a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Cairns is a full-time employee of the Company. Mr Cairns is Executive Chair and Managing Director of Stavely Minerals Limited and is a shareholder and option holder of the Company. Mr Cairns has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Cairns consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

Authorised for lodgement by Chris Cairns, Executive Chair and Managing Director.

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## JORC Code, 2012 Edition – Table 1

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	<p>The Cayley deposit has been predominately evaluated using diamond drilling with a minor component of reverse circulation and sonic drilling. The Thursday's Gossan Chalcocite blanket has been evaluated predominately using diamond and aircore drilling with a minor component of reverse circulation drilling.</p> <p>For diamond holes drilled by Stavely Minerals, the entire hole has been sampled. PQ quarter core and HQ half core is submitted for analysis. Pre drill hole SMD069 the sample intervals were based on lithology but in general were 1m. No intervals were less than 0.4m or greater than 1.2m.</p> <p>For diamond holes post drill hole SMD069, the maximum sample size is 1.2m and the minimum sample size is 0.6m, unless it is between core-loss. In zones of significant core-loss, sampling of all available core will be taken and a record of lost core will be made. There is no minimum sample size in these zones. Samples are taken every 1m on metre marks except in high grade lodes and massive sulphide within the Cayley Lode. Within the Cayley Lode, the sampling boundaries will reflect the high-grade contacts at beginning and within high grade lodes and massive sulphide within the Cayley Lode whilst honouring the minimum and maximum sample sizes.</p> <p>For historical diamond drill holes, sub-sampling is not well documented. Holes drilled by BCD, Newcrest, North Limited and CRAE the majority of the hole was sampled in 1-2m intervals, all drill core was ½ core sampled. For Pennzoil holes, samples were only selected where mineralisation was observed, it is unknown whether these were half or full core intervals.</p> <p>For the Sonic drilling the entire hole was sampled for analysis. The sample intervals were generally 1m. Sampling of the Sonic core is undertaken by cutting the soft clay material into quarters and bagging the sample. In competent samples, large pieces of core are cut into quarters and sampled along with small pieces to approximate one quarter of the sample present in the interval.</p> <p>For reverse circulation holes drilled by Stavely Minerals, a representative 1m split samples (~12.5% or nominally 3kg) were collected using a rotary cone splitter mounted on the cyclone and placed in a calico bag, the 1m samples for the entire hole were submitted for analysis.</p> <p>For BCD reverse circulation holes TGRC126-138, 1-2m composite samples were collected through regolith and bedrock except within mineralisation and / or zones of interest where 1m samples were collected from the bulk sample using a riffle splitter to collect a representative sample (of unknown proportion).</p> <p>BCD predominantly used Air Core drilling to define the secondary chalcocite resource.</p>

Criteria	JORC Code explanation	Commentary											
		<p>For TGAC002-TGAC013 the entire hole was sampled with average 3m length composite samples, the sample collection method is unknown.</p> <p>For TGAC014-TGAC045 often, approximately the top 20-30m of each hole was not sampled. Sampling then occurred every 1m except in oxide zones where 2m composites were taken.</p> <p>For TGAC047-TGAC073, TGAC091-TGAC106, and TGAC112-TGAC125 approximately the top 15 metres were not sampled. Sampling included taking 1-2m composites through regolith and bedrock except within mineralisation and/or zones of interest where 1m samples were requested.</p> <p>For SAC029-SAC031, 1m samples were collected for the entire hole.</p> <p>For TGAC126-TGAC159, 3m composite samples were collected.</p>											
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Sample representivity was ensured by a combination of Company Procedures regarding quality control (QC) and quality assurance/ testing (QA). Certified standards and blanks were inserted into the assay batches.											
	<i>Aspects of the determination of mineralisation that are Material to the Public Report - In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	<p><b>Diamond Drilling</b></p> <p>Stavelly Minerals drill sampling techniques are considered industry standard for the Stavelly work program.</p> <p>For Stavelly Minerals diamond, sonic and reverse circulation drill samples were crush to 70% &lt; 2mm, riffle/rotary split off 1kg, pulverize to &gt;85% passing 75 microns to produce a 30g charge for gold analysis and 0.25g charge for multi-element analysis.</p>											
<b>Drilling techniques</b>	<i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond</i>	<p>A summary of drilling by Company is given below.</p> <table border="1"> <thead> <tr> <th>Company</th> <th>Drill hole type</th> <th>Number of holes</th> <th>Total metres</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Stavelly Minerals</td> <td>DD</td> <td>185</td> <td>74,050</td> </tr> <tr> <td>Sonic</td> <td>12</td> <td>961</td> </tr> </tbody> </table>	Company	Drill hole type	Number of holes	Total metres	Stavelly Minerals	DD	185	74,050	Sonic	12	961
Company	Drill hole type	Number of holes	Total metres										
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	Sonic	12	961										



Criteria	JORC Code explanation	Commentary				
	<p><i>tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></p>		RC	20	2,905	
		BCD	DD	5	1,277	
				RC	14	688
				AC	138	8,209
		Newcrest	DD	5	2,089	
				AC	43	1,871
		CRAE	DD	2	601	
		North Limited	DD	3	856	
				AC	62	3,677
		Pennzoil	DD	2	181	
		<p>Diamond core drilled by Titeline Drilling Pty Ltd for Stavely Minerals (SMD prefix holes) was drilled utilising standard wireline drilling mostly using PQ bits but also with some HQ drilling to produce oriented core. Triple tube core barrels were routinely used to maximise drill core recovery. Core diameter is mostly PQ (85mm) or HQ3 (63.5mm). For diamond tails to RC drilling, HQ diameter core is produced.</p> <p>Sonic drilling was conducted by Groundwave Drilling Services for Stavely Minerals. Sonic rigs drill by vibrating the rod string and drill bit to produce high frequency resonant energy at the bit face, which is able to liquefy clay, push through sand, and pulverise solid lithologies. External casing is advanced at the same rate as the drill string in order to stop any material from collapsing into the open hole. The core barrel is retrieved from the drill hole using the conventional method of pulling all of the rods out of the drill hole. The sample is vibrated out of the barrel into metre long plastic bags after removing the drill bit.</p> <p>The Stavely Minerals RC holes were drilled by Budd Exploration Drilling P/L. The RC percussion drilling was conducted using a UDR 1000 truck mounted rig with onboard air. A Sullair 350/1150 auxiliary compressor was used. 4" RC rods were used and 5<sup>1</sup>/<sub>4</sub>" to 5<sup>3</sup>/<sub>4</sub>" drill bits. A Reflex Digital Ezy-Trac survey camera was used.</p> <p>Historic North Ltd diamond holes VICT1D1 and VICT1D2 were drilled in 1993 by contractor Luhrs Holding using a "Edsom 3000 Rig". Diamond hole VICTD4 was drilling in 1993 by Silver City Drilling using a "Warman 1000 Rig". Holes were precollared to the base of weathering at about 50m depth, then HQ and then NQ at about 140-170m depth.</p> <p>Historic diamond holes DD96WL010 and DD96WL011 were drilled for CRAE in 1996 by drill contractor Australian Diamond Drilling Pty Ltd using a UDR650 rig. The holes were pre-collared to 3-5m, then drilled HQ to around 200m, then cased off to NQ.</p> <p>Historic diamond holes VSTD001 - VSTD004 and VSTD006 were drilled for Newcrest in 2002-2003 by Silver City Drilling with a modified UDR600 (? multipurpose) rig.</p> <p>Historic diamond holes SNDD001-SNDD005 were drilled for BCD during 2008-2009 by Silver City Drilling using a Wallis Mantis 700 Rig for SNDD001-004 and Titeline Drilling for SNDD005. Holes were collared HQ and cased off to NQ when drill conditions were favourable.</p>				

Criteria	JORC Code explanation	Commentary
		<p>Historical aircore holes TGAC002 to TGAC125 were drilled vertically by Beaconsfield Gold Mines Pty Ltd in 2008 and 2009 by Wallis Drilling.</p> <p>Historical aircore holes with the prefix SAC were drilled by BCD in 2009. The holes were drilled vertically by Blacklaws Drilling Services.</p> <p>Historical reverse circulation holes TGRC082 to TGRC143 were drilled by BCD in 2009. Drilling was conducted by Budd Exploration Drilling P/L using a Universal drill rig. TGRC138 was oriented at -60° towards magnetic azimuth 55°.</p> <p>Historical aircore holes TGAC126 to TGAC159 were drilled by BCD in 2012. The holes were drilled vertically by Broken Hill Exploration using a 700psi/300cfm aircore rig.</p>
<p><b>Drill sample recovery</b></p>	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p>	<p>Diamond core recoveries for Stavelly Minerals holes were logged and recorded in the database.</p> <p>Unless specifically mentioned, the core recovery for all diamond holes was on average greater than 90%.</p> <p>Core recovery for SMD050 averaged 82% with an average recovery of 76% in the mineralised zone between 79m and 93m.</p> <p>Core recovery for SMD051 averaged 86%. For the mineralised zone between 97m and 182m recovery averaged 76%, however between 98m and 127.7m the recovery only averaged 55%.</p> <p>Core recovery for SMD053 was on average 87%, however the in the final metre of the mineralised zone there was only 46% recovery.</p> <p>Core recovery for SMD054 averaged 87%.</p> <p>Core recovery for SMD060 averaged 85%. However, core recovery between 104m and 116m was very poor at less than 50% and between 119.9m and 126.2m there was 100% core loss.</p> <p>Core recovery for SMD074 averaged 93%, but a portion of the mineralised zone between 181.6m and 195.7m only averaged 76%.</p> <p>While the overall recovery for SMD093 and SMD094 was 94% and 96%, respectively, there was core loss through the Cayley Lode and hence a wedge – SMD093W1 and SMD094W1 was drilled for each hole. There was still some core loss in the Cayley Lode in the wedges.</p> <p>Core recovery for SMD096 averaged 90%, however for the Cayley Lode recovery was 99%, but 0.3m of core was lost from the bottom of the mineralised zone.</p> <p>Core recovery for SMD104 averaged 89%, however in the high-grade zone the core recovery averaged 96%.</p> <p>Core recovery for SMD106 averaged 89%.</p> <p>Overall core recovery for SMD108 averaged 88%, however within the Cayley Lode it dropped to an average of 76%.</p> <p>Overall core recovery for SMD134 averaged 92%, however there was 4.6m core loss in the Cayley Lode.</p> <p>Overall core recovery for SMD135 averaged 95%, however there was 0.5m core loss in the Cayley Lode.</p>

Criteria	JORC Code explanation	Commentary
		<p>Overall core recovery for SMD156 averaged 90%, however core recovery was only 46% in the Cayley Lode between 262.4m to 269.4m.</p> <p>Overall core recovery for SMD156W1 averaged 91%, however core recovery was only 87% in the Cayley Lode between 246m to 270m.</p> <p>Recoveries for BCD diamond holes (SNDD001-SNDD004) averaged 85%, with a high degree of core loss in the weathered profile, serpentinite and through zones of high sulphide content. North Ltd holes VICTD1 and VICTD2 averaged 87% recovery and Newcrest hole VSTD averaged 93%.</p> <p>Recoveries were not documented for Pennzoil holes, Newcrest holes VSTD001-004 or BCD hole SNDD005.</p> <p>Sonic core recoveries were logged and recorded in the database.</p> <p>Core recovery for SMS001D averaged 97%.</p> <p>Core recovery for SMS002AD averaged 78%.</p> <p>Core recovery for SMS003 to SMS011 averaged between 89% and 98%.</p> <p>Core recovery for SMS012 averaged 86%.</p> <p>Core recovery for SMS013 averaged 84%.</p> <p>RC sample recovery for holes drilled by Stavely Minerals was good. Booster air pressure was used to keep the samples dry despite the hole producing a significant quantity of water. RC sample recovery was visually checked during drilling for moisture or contamination.</p> <p>For BCD percussion drilling, wet drilling and sampling conditions is often mentioned and is likely to have affected all drill holes. However, data and information is not available.</p>
	<p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p>	<p>Stavely Minerals diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the driller. Triple tube core barrels were routinely used to maximise drill core recovery.</p> <p>Sonic drilling was used by Stavely Minerals in difficult ground conditions, due to its ability to drill a wide range of material types and recover the sample. A wide variety of drill bits and barrels are available for use in different types of ground on the Sonic drill rig.</p> <p>The RC samples for drilling conducted by Stavely Minerals was collected by plastic bag directly from the rig-mounted cyclone and laid directly on the ground in rows of 10. The drill cyclone and sample buckets are cleaned between rod-changes and after each hole to minimise down-hole and/or cross contamination. Booster air pressure was used to keep the samples dry despite the hole producing a significant quantity of water. When samples could no longer be kept dry, RC drilling stopped and diamond tails were drilled. RC sample recovery was visually checked during drilling for moisture or contamination.</p> <p>No details are available for the historical drill holes.</p>

Criteria	JORC Code explanation	Commentary
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	<p>There are some issues with Stavely Minerals diamond core sample recovery within the mineralised zone. This includes the loss of material which is likely to have carried grade.</p> <p>For the RC drilling by Stavely Minerals, no analysis has been undertaken as yet regarding whether sample bias may have occurred due to preferential loss/gain of fine/coarse material and is not considered to have a material effect given the good sample recovery.</p> <p>For BCD drilling, wet drilling and sampling conditions is often mentioned and is likely to have affected all drill holes. However, data and information is not available for assessing the effect these conditions have on grade.</p> <p>No details are available for the other historical drill holes.</p>
<b>Logging</b>	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	<p>For Stavely Minerals drilling geological logging of samples followed Company and industry common practice. Qualitative logging of samples including, but not limited to, lithology, mineralogy, alteration, veining and weathering. Diamond core logging included additional fields such as structure and geotechnical parameters.</p> <p>Magnetic Susceptibility measurements were taken for each 1m diamond core interval.</p> <p>All historical drill holes were geologically logged.</p>
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	<p>For all diamond and sonic drilling by Stavely Minerals, logging is quantitative, based on visual field estimates. Systematic photography of the core in the wet and dry form was completed.</p> <p>For all RC drilling by Stavely Minerals, logging is quantitative, based on visual field estimates. Chip trays with representative 1m RC samples were collected and photographed then stored for future reference.</p> <p>For all historic drilling logging is quantitative, based on visual field estimates.</p>
	<i>The total length and percentage of the relevant intersections logged.</i>	<p>For Stavely Minerals diamond and Sonic Drilling, detailed core logging, with digital capture, was conducted for 100% of the core by Stavely Minerals' on-site geologist at the Company's core shed near Glenthompson.</p> <p>For Stavely Minerals RC drilling, all chip samples were geologically logged by Stavely Minerals' on-site geologist on a 1m basis, with digital capture in the field.</p> <p>Historical holes have been logged in their entirety.</p>
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	<p>For Stavely Minerals diamond drilling quarter core for the PQ diameter diamond core and half core for the HQ diameter core was sampled on site using a core saw.</p> <p>Sampling of the Sonic core is undertaken by cutting the soft clay material into quarters and bagging the sample. In competent samples, large pieces of core will be cut into quarters and sampled along with small pieces to approximate one quarter of the sample present in the interval. Mining Plus have confirmed that this sampling procedure is acceptable.</p> <p>For historical holes, sub-sampling is not well documented. Holes drilled by BCD, Newcrest, North Limited and CRAE the majority of the hole was sampled in 1-2m intervals, all drill core was ½ core sampled. For Pennzoil holes, samples</p>

Criteria	JORC Code explanation	Commentary
		were only selected where mineralisation was observed, it is unknown whether these were half or full core intervals.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	<p>Splitting of samples for RC drilling conducted by Stavely Minerals occurred via a rotary cone splitter by the RC drill rig operators. Cone splitting of RC drill samples occurred regardless of whether the sample was wet or dry.</p> <p>For BCD holes TGRC126-138, 1-2m composite samples were collected through regolith and bedrock except within mineralisation and / or zones of interest where 1m samples were collected from the bulk sample using a riffle splitter to collect a representative sample (of unknown proportion). In the 2006 program (TGRC001) it was noted that the rig did not have the capacity to keep the sample dry, a 3m composite was collected for each 3m rod run with the rods flushed at the end of each run to limit contamination, the ample collection method was not recorded.</p>
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	<p>Company procedures were followed to ensure sub-sampling adequacy and consistency. These included, but were not limited to, daily work place inspections of sampling equipment and practices.</p> <p>The sampling practices followed for the diamond drilling were audited by Mining Plus in December 2019 and found to be appropriate. In February 2020, Cube Consulting conducted a site visit and audit of sampling procedures. Recommendations made have been implemented.</p> <p>No details of sample preparation are given for the historical drilling.</p>
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	<p>For diamond, Sonic and RC drilling by Stavely Minerals, blanks and certified reference materials are submitted with the samples to the laboratory as part of the quality control procedures. Blanks were inserted – 1 per 40 samples outside the strongly mineralised zone and 1 in 10 samples within the strongly mineralised zone. Standards were inserted – 1 per 20 samples outside the strongly mineralised zone and 1 in 10 samples within the strongly mineralised zone.</p> <p>For historical holes, only BCD AC holes TGAC126-TGAC159 had any field QA/QC with roughly one duplicate was speared for each hole and one standard inserted for each hole. These do not included analysis for gold.</p>
	<i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>	For diamond drilling by Stavely Minerals, quarter core sampling of the diamond PQ core and Sonic core is conducted to provide a field duplicate from hole SMD067 to SMD097 and all Sonic holes.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	The sample sizes are considered to be appropriate to correctly represent the sought mineralisation.
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and</i>	Stavely Minerals core and 1m RC split samples were analysed by multielement ICPAES Analysis - Method ME-ICP61. A 0.25g sample is pre-digested for 10-15 minutes in a mixture of nitric and perchloric acids, then hydrofluoric acid is added and the mixture is evaporated to dense fumes

Criteria	JORC Code explanation	Commentary
	<p><i>whether the technique is considered partial or total.</i></p>	<p>of perchloric (incipient dryness). The residue is leached in a mixture of nitric and hydrochloric acids, the solution is then cooled and diluted to a final volume of 12.5mls. Elemental concentrations are measured simultaneously by ICP Atomic Emission Spectrometry. This technique approaches total dissolution of most minerals and is considered an appropriate assay method for porphyry copper-gold systems.</p> <p>This technique is a four- acid digest with ICP-AES or AAS finish.</p> <p>The drill core and 1m grab splits were also analysed for gold using Method Au-AA23. Up to a 30g sample is fused at approximately 1,100°C with alkaline fluxes including lead oxide. During the fusion process lead oxide is reduced to molten lead which acts as a collector for gold. When the fused mass is cooled the lead separates from the impurities (slag) and is placed in a cupel in a furnace at approximately 900°C. The lead oxidizes to lead oxide, being absorbed by the cupel, leaving a bead (prill) of gold, silver (which is added as a collector) and other precious metals. The prill is dissolved in aqua regia with a reduced final volume. Gold content is determined by flame AAS using matrix matched standards. For samples which are difficult to fuse a reduced charge may be used to yield full recovery of gold. This technique approaches total dissolution of most minerals and is considered an appropriate assay method for detecting gold mineralisation.</p> <p>Information on assaying details for historic holes are not well documented, the following information was gathered from previous annual technical reports:</p> <ul style="list-style-type: none"> <li>• Pennzoi: A base metal suite was assayed via AAS (digestion not specified) and Au was assayed via fire assay.</li> <li>• North, CRAE and Newcrest: A base metal suite was assayed via Mixed Acid digest, AAS detection (ICP-OES for CRAE) and Au was assayed via fire assay.</li> <li>• BCN: A base metal suite by aqua regia digest ICP-OES methods and repeated assays for samples returning greater than 5000ppm Cu by Mixed Acid Digest ICP-OES detection. Au was assayed via fire assay.</li> </ul>
	<p><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p>	<p>Not applicable to this report.</p>
	<p><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels</i></p>	<p>Laboratory QAQC for Stavelly Minerals drilling involved insertion of CRM (Certified Reference Materials), duplicates and blanks.</p> <p>The analytical laboratory provides their own routine quality controls within their own practices. The results from their own validations were provided to Stavelly Minerals.</p>

<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
	<i>of accuracy (ie lack of bias) and precision have been established.</i>	Results from the CRM standards and the blanks gives confidence in the accuracy and precision of the assay data returned from ALS.  For historical holes, only BCD AC holes TGAC126-TGAC159 had any field QA/QC with roughly one duplicate was speared for each hole and one standard inserted for each hole. These do not included analysis for gold.
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Stavely Minerals' Managing Director, the Technical Director or the Exploration Manager have visually verified significant intersections in the diamond core and percussion chips.
	<i>The use of twinned holes.</i>	No twinned holes have been drilled.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	For Stavely Minerals drilling primary data was collected for drill holes using the OCRIS logging template on Panasonic Toughbook laptop computers using lookup codes. The information was sent to a database consultant for validation and compilation into a SQL database.  All primary assay data is received from the laboratory as electronic data files that are imported into the sampling database with verification procedures in place.  Digital copies of Certificates of Analysis are stored on the server which is backed up daily.  Data is also verified on import into mining related software.  No details are available for historical drilling.
	<i>Discuss any adjustment to assay data.</i>	No adjustments or calibrations were made to any assay data used in this report.
<b>Location of data points</b>	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	The drill collar location was pegged before drilling and surveyed using Garmin handheld GPS to accuracy of +/- 3m. Collar surveying was performed by Stavely Minerals' personnel. Subsequent to drilling, the collar locations have been surveyed using a DGPS.  There is no location metadata for historic Pennzoil, North Ltd, CRAE or Newcrest holes.
	<i>Specification of the grid system used.</i>	The grid system used is GDA94, zone 54.
	<i>Quality and adequacy of topographic control.</i>	For Stavely Minerals' exploration, the RL was recorded for each drill hole location from the DGPS. Accuracy of the DGPS is considered to be within 1m.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	The drill hole spacing is predominantly 40m by 40m but in places is 60m by 60m.  The data spacing is deemed to be sufficient in reporting a Mineral Resource.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	The drill hole spacing has been shown to be appropriate by variography.

Criteria	JORC Code explanation	Commentary
	<i>Whether sample compositing has been applied.</i>	<p>For Stavely Minerals diamond and sonic core the entire hole is sampled. For diamond core PQ quarter core and HQ half core was submitted for analysis. Sample intervals were based on lithology but in general were 1m. No intervals were less than 0.4m or greater than 1.2m.</p> <p>For Stavely Minerals RC, percussion drilling was used to produce a 1m bulk sample (~25kg) which was collected in plastic bags and representative 1m split samples (12.5% or nominally 3kg) were collected using a cone splitter and placed in a calico bag. The cyclone was cleaned out with compressed air at the end of each hole and periodically during the drilling. The 1m split samples were submitted for analysis.</p> <p>Historical diamond hole PEND1T was drilled by Pennzoil of Australia and only portions of the hole were sampled, with composite samples varying from 1 to 8m.</p> <p>Historical RAB drill holes with the prefix PENR were drilled by Pennzoil of Australia and alternate two metre composite samples were assayed for Ag, Cu, Pb and Zn.</p> <p>Historical aircore drill holes with the prefix STAVRA were drilled by North Limited and three metre composite samples were assayed for Au, Cu, Pb and Zn.</p> <p>Historical diamond holes VICT1D2 and VICT1D4 were drilled by North Limited. For VICT1D2 the top 28 metres was not sampled, there after one metre or two metre composite samples were assayed for Au, Ag, Co and Mo. For VICT1D4 the top 27m was not sampled, there after one metre samples were assayed for Au, As, Cu, Mo, Pb and Zn.</p> <p>For historical aircore holes TGAC002 to TGAC125 approximately the top 15 to 16 metres was not sampled, after that one metre intervals samples were taken for the remainder of the holes.</p> <p>For aircore holes TGAC126 to TGAC159 no samples were taken for the top 9 metres, after which three metre composite samples were collected for the remainder of the holes.</p> <p>For aircore holes SAC001 to SAC031 the top approximately 5 to 30m were not sampled, after which three metre composite samples were assayed for Au, Ag, As, Bi, Cu, Hg, Pb, S and Zn.</p> <p>For historical holes with the prefix TGRC one metre samples were assayed for Au, Ag, As, Co, Cu, Fe, Ni, Pb, S and Zn.</p>
<b>Orientation of data in relation to geological structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	As best as practicable, drill holes are designed to intercept targets and structures at a high angle.
	<i>If the relationship between the drilling orientation and the orientation of key</i>	The majority of the drilling has intersected the Cayley Lode mineralisation approximately perpendicularly except where limitations relating to surface access has resulted in the



<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
	<i>mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	Cayley Lode mineralisation being intersected sub optimally.
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Drill samples in closed poly-weave bags are delivered by Stavely personnel to Ballarat from where the samples are couriered by a reputable transport company to ALS Laboratory in Adelaide, SA. At the laboratory, samples are stored in a locked yard before being processed and tracked through sample preparation and analysis.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	An audit of the sampling techniques, QAQC and the database was conducted by Mining Plus in November 2019 and by Cube Consulting in February 2020. The majority of the recommendations of the audit have been implemented. In particular there were slight adjustments to the sampling interval, frequency of QAQC samples and a minor update to the database.

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i>	<p><b>Stavely Project</b></p> <p>The Stavely Project comprises RL2017, EL6870, EL7347, EL7921, EL7922, EL7923 and EL7924. Stavely Minerals hold 100% ownership of the Stavely Project tenements.</p> <p>The mineralisation at Thursday's Gossan is situated within retention licence RL2017.</p> <p>EL4556, which was largely replaced by RL2017 was purchased by Stavely Minerals (formerly Northern Platinum) from BCD Resources Limited in May 2013. RL2017 was granted on the 8<sup>th</sup> May 2020 and expires on the 7<sup>th</sup> May 2030. A Section 31 Deed and a Project Consent Deed has been signed between Stavely Minerals Limited and the Eastern Maar Native Title Claim Group for RL2017.</p> <p>EL6870 was granted on the 30 August 2021 and expires on the 29 August 2026. A Section 31 Deed and a Project Consent Deed has been signed between Stavely Minerals Limited and the Eastern Maar Native Title Claim Group for EL6870.</p> <p>EL7347 was granted on the 17<sup>th</sup> June 2022 for a period of 5 years. EL7921 was granted on the 15<sup>th</sup> September 2022 for a period of 5 years. EL7922, EL7923 and EL7924 were granted on the 29<sup>th</sup> September 2022 for a period of 5 years. These 5 tenements do not cover crown land and are not subject the Native Title.</p> <p><b>Yarram Park Project</b></p> <p>The Yarram Park Project comprises EL5478, EL7628 and EL7920. EL5478 was purchased by Stavely Minerals from Diatre Resources Limited in April 2015. Stavely Minerals hold 100% ownership of EL5478. EL7628 was granted to Stavely Minerals on 10 December 2021 for a period of 5 years. EL7920 was granted on the 15<sup>th</sup> September 2022 for a period of 5 years.</p> <p>The tenements are on freehold land and are not subject to native title claim.</p> <p><b>Black Range Joint Venture</b></p> <p>The Black Range Joint Venture comprises exploration licence 5425 and is an earn-in and joint venture agreement with Navarre Minerals Limited. Stavely Minerals earned 51% equity in EL5425 in December 2019. EL5425 was granted on 18 December 2021 and expires on the 17 December 2022. An application for extension of term has been lodged with the DJPR.</p>
	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a</i>	All the exploration licences and the retention licence are in good standing and no known impediments exist.

Criteria	JORC Code explanation	Commentary
	<i>licence to operate in the area.</i>	
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p><b>Stavely Project &amp; Black Range Joint Venture</b></p> <p>The Mt Stavely belt has been explored since the late 1960's, including programmes undertaken by mineral exploration companies including WMC, Duval, CRA Exploration, BHP, and North.</p> <p>Exploration activity became focused on Thursday's Gossan and the Junction prospects following their discovery by Pennzoil of Australia Ltd in the late 1970s. North Limited continued to focus on Thursday's Gossan in the 1990s. North's best drill result at Thursday's Gossan came from VICT1D1 which gave 161m of 0.26% Cu from 43m, including 10m of 0.74% Cu from 43m from a supergene-enriched zone containing chalcocite.</p> <p>The tenement was optioned to CRA Exploration between 1995 and 1997. CRAE drilled several deep diamond drill holes into Thursday's Gossan, including DD96WL10, which intersected 186m from 41m of 0.15% Cu and DD96WL11, which intersected 261.7m from 38.3m of 0.13% Cu.</p> <p>EL4556 was further explored by Newcrest Operations Limited under option from New Challenge Resources Ltd between 2002 and 2004. Their main focus was Thursday's Gossan in order to assess its potential as a porphyry copper deposit. One of their better intersections came from drill hole VSTD01 on the northern edge of the deposit which gave 32m at 0.41 g/t Au and 0.73% Cu from 22m in supergene-enriched material.</p> <p>The Stavely Project was optioned to Beaconsfield Gold Mines Pty Ltd in 2006 who flew an airborne survey and undertook an extensive drilling programme focused on several prospects including Thursday's Gossan. One of their diamond drill holes at Thursday's Gossan, SNDD001, encountered zones with quartz- sulphide veins assaying 7.7m at 1.08 g/t Au and 4.14% Cu from 95.3m and 9.5m at 0.44 g/t Au and 2.93% Cu from 154.6m along silicified and sheared contacts between serpentinite and porphyritic intrusive rocks.</p> <p>Once Beaconsfield Gold Mines Pty Ltd had fulfilled their option requirements, title of EL4556 passed to their subsidiary company, BCD Metals Pty Ltd, who undertook a gravity survey and extensive drilling at prospects including Thursday's Gossan. They also commissioned a maiden Mineral Resource estimate for Thursday's Gossan.</p> <p>All work conducted by previous operators at Thursday's Gossan is considered to be of a reasonably high quality.</p>
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation.</i>	<p><b>Stavely Project &amp; Black Range Joint Venture</b></p> <p>The Stavely Project and Black Range JV are located in the Mount Stavely Volcanic Complex (MSVC). Intrusion of volcanic arc rocks, such as the Mount Stavely Volcanic Complex, by shallow level porphyries can lead to the formation of porphyry copper ± gold ± molybdenum deposits.</p> <p>EL6870 is interpreted by Cayley et al. (2017) to host structurally dislocated and rotated segments of both the Stavely Belt and the Bunnugal Belt.</p>

Criteria	JORC Code explanation	Commentary
		<p><b>Stavely Project</b></p> <p><b>Thursday's Gossan Prospect</b></p> <p>The Thursday's Gossan prospect is located in the Mount Stavely Volcanic Complex (MSVC). Intrusion of volcanic arc rocks, such as the Mount Stavely Volcanic Complex, by shallow level porphyries can lead to the formation of porphyry copper ± gold ± molybdenum deposits.</p> <p>The Thursday's Gossan Chalcocite deposit (TGC) is considered to be a supergene enrichment of primary porphyry-style copper mineralisation. Mineralisation is characterised by chalcopyrite, covellite and chalcocite copper sulphide mineralisation within a sericite, illite and kaolin clay alteration assemblage. Copper mineralisation is within a flat lying enriched 'blanket' of overall dimensions of 4 kilometres north-south by up to 1.5 kilometres east-west by up to 60 metres thick with an average thickness of approximately 20 metres commencing at an average depth below surface of approximately 30 metres. The majority (circa 60%) of the Mineral Resources reside within a higher-grade zone of approximate dimensions of 1 kilometre x 300 metres by 35 metres thick.</p> <p>The mineralisation at the Cayley Lode at the Thursday's Gossan prospect is associated with high-grade, structurally controlled copper-gold-silver mineralisation along the ultramafic contact fault.</p> <p>The Thursday's Gossan area hosts a major hydrothermal alteration system with copper-gold mineralisation over a 10 kilometre long corridor. The Junction porphyry target is defined by a coincident magnetic high, strong soil copper geochemistry, RAB drilling copper anomalism. Stavely Minerals believes the technical evidence indicates there is significant porphyry copper-gold mineralisation potential at depth at Thursday's Gossan.</p> <p><b>Yarram Park Project</b></p> <p>The aeromagnetic data shows that the northern half of EL5478 covers an offset of the Mount Stavely Belt, or a structurally offset portion of the Bunnagul Belt, which is overlain by approximately 80 metres of Quaternary cover.</p>
<p><b>Drill hole Information</b></p>	<p><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i></p> <p><i>easting and northing of the drill hole collar</i></p> <p><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></p> <p><i>dip and azimuth of the hole</i></p>	<p>All exploration results used in the Mineral Resource estimate have previously been reported.</p>

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	<p><i>down hole length and interception depth hole length.</i></p> <p><i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></p>	<p>No material drill hole information has been excluded.</p>
<b>Data aggregation methods</b>	<p><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></p>	<p>High-grade mineralisation exploration all copper and/or gold intervals considered to be significant have been reported with subjective discretion.</p> <p>No top-cutting of high-grade assay results have been applied, nor was it deemed necessary for the reporting of significant intersections.</p>
	<p><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p>	<p>In reporting exploration results, length weighted averages are used for any non-uniform intersection sample lengths. Length weighted average is (sum product of interval x corresponding interval grade %) divided by sum of interval length.</p>
	<p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<p>Assumptions used for reporting of metal equivalent values are clearly stated.</p>
<b>Relationship between mineralisation widths and intercept lengths</b>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p>	<p><b>Stavelly Project</b></p> <p><b>Thursday's Gossan Prospect</b></p> <p>The vast majority of the diamond drill holes used in the resource estimation were oriented to intercept the steeply dipping mineralisation at a high angle. As a rule, drill holes had a -60 degree dip to azimuth 070 and the mineralisation averaged a dip of -80 degrees to azimuth 250. The average angle of interception was 40 degrees and the true width is ~65% of the intercept length.</p> <p>In a small percentage of holes due to constraints on drill hole location the holes were oriented oblique to known mineralisation orientations and therefore the intercepts are considered greater than the true widths of mineralisation.</p>
	<p><i>If it is not known and only the down hole lengths are</i></p>	

<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
	<i>reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i>	
<b>Diagrams</b>	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	Cross sections and a plan of collar locations were included with previously reported exploration results. Relevant diagrams have been included within the Mineral Resource report main body of text.
<b>Balanced reporting</b>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	All copper and gold values considered to be significant for structurally controlled mineralisation have been reported. Some subjective judgement has been used.
<b>Other substantive exploration data</b>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	All relevant exploration data is shown on figures and discussed in the text.
<b>Further work</b>	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	<b>Stavelly Project</b> <b>Thursday's Gossan Deposit</b> Additional follow-up diamond drilling has been planned to test the depth extents of the Cayley Lode mineralisation and for the possible causative porphyry.