

# Stavely Discovers Two New Gold and Base Metals Prospects at Ararat, Western Victoria

Indications of another possible 'Stawell-style' gold system at White Lead and an extensive new zinc-copper-gold prospect identified at Carroll's

## Highlights

 Significant new gold and base metals prospects discovered from recent soil geochemical sampling at the Ararat Project, building further exploration momentum

#### At the White Lead Gold Prospect:

- Soil geochemistry has defined a 1.2km long arsenic, copper, lead, and chromium anomaly consistent with that associated with the Stawell Gold deposit; and
- Rock-chip results of up to 5.57g/t gold have been received

#### At the Carroll's Base Metals Prospect:

- Soil geochemistry has defined a 1.5km long and up to 500m wide zinc, copper, lead and chromium anomaly which remains open to the north and south
- The soil anomaly is orders of magnitude larger than the soil anomaly associated with the Mt Ararat copper-gold-zinc deposit which contains an Inferred Mineral Resource of 1.2Mt at 2.0% copper, 0.5g/t gold, 0.4% zinc and 6g/t silver
- Very high-grade rock-chip results have been returned including:
  - 24.0% copper, 1.1% zinc and 0.52g/t gold; and
  - 10.8% copper, 0.41% zinc and 1.54g/t gold

Stavely Minerals Limited (ASX Code: **SVY** – "Stavely Minerals") is pleased to advise that it has discovered two significant new exploration prospects at its **Ararat Project** in western Victoria (Figures 1 and 2), further expanding its exploration potential following the recent discovery of a 'Stawell-style' gold prospect at Cathcart Hill (*see ASX Announcement* – *29 April*).

The discoveries, which were also made as a result of recent soil geochemical sampling and rock-chip sampling programmes, include an additional high-priority 'Stawell-style' gold prospect at **White Lead** and an extensive VMS-style base metals target at **Carroll's**. Plans of the geochemical anomalies are presented in Appendix 1.

The Carroll's soil anomaly is considerably larger than that covering the existing Mt Ararat VMS deposit, which contains an Inferred Mineral Resource of 1.2Mt grading 2.0% copper, 0.5g/t gold, 0.4% zinc and 6g/t silver, while the White Lead Gold Prospect extends over a 1.2km strike length and also represents a high priority exploration target.

Stavely Minerals field personnel have been conducting extensive soil geochemical sampling programmes for primary analysis using a Niton® portable XRF analyser with check analysis through ALS Brisbane. The Niton® XRF unit cannot reliably be used for analysis of gold in an exploration context unless in extremely high abundances but has proven very effective for analysis of 'indicator' elements.



The Carroll's and White Lead areas were selected for systematic soil sampling for two reasons:

- 1. Stavely Minerals' first RC drill hole (SARC001) into the Mt Ararat copper-gold-zinc VMS deposit was pushed well into the footwall of the VMS and intercepted 13m at 1g/t gold to the end of the hole. The association with arsenopyrite was noted as similar to gold mineralisation at Stawell.
- 2. Reconnaissance mapping and rock-chip sampling returned very strong base metal and gold results (10.8% copper, 0.41% zinc and 1.54g/t gold) in areas not previously covered by even basic exploration methods such as soil sampling.

#### **White Lead Gold Prospect**

At the White Lead Gold Prospect, the Niton® results show a coincident arsenic, chromium, lead and copper soil sample anomaly, all confirmed by selected duplicate analysis by aquaregia digestion and ICPMS determination anomalism (see Figure 3). The surficial geochemical signature is very similar to that described at the Stawell Gold Deposit<sup>1</sup>. The anomaly extends over 1.2km in strike, and remains open to the north and south. The current soil sample grid will be extended in both directions.

Rock-ship sampling of surficial float has returned gold anomalous results of **up to 5.57g/t gold**.

There are numerous shallow historic gold workings commencing along the White Lead gold trend and progressing downhill from there into palaeo-alluvial gravels. The Company is reasonably confident it has identified the hard-rock source of the alluvial gold in the White Lead historic workings.

The White Lead area is part of the Cathcart Goldfield, where alluvial gold was first discovered at Pinky Point in 1854 and at White Lead in 1855. The Cathcart area produced a significant proportion of the gold produced from the greater Ararat Goldfield with estimated production in excess of 20 tonnes of gold (circa 640,000oz) from alluvial and 'deep lead'<sup>2</sup> sources.



<sup>&</sup>lt;sup>1</sup>The weathered expression of the Stawell Gold Deposit was documented in a study by Noble et al as part of a Cooperative Research Centres project on Landscape Evolution and Mineral Exploration (CRC LEME) and can be accessed here: <a href="https://www.crcleme.org.au/RegExpOre/Stawell.pdf">www.crcleme.org.au/RegExpOre/Stawell.pdf</a>

The study found that in the soils over the Stawell Gold Deposits arsenic, chromium and lead showed the greatest anomaly contrasts—very similar to the patterns observed at both the White Lead and Cathcart Hill Prospects.

<sup>&</sup>lt;sup>2</sup>Deep leads are gold bearing alluvial gravels mined underneath younger basalt cover.



Of note is that the host lithologies to the Stawell Gold Mine are analogous to the lithologies in the White Lead area with the local Carroll's Amphibolite considered to be the metamorphosed equivalent to the Magdala Basalt at the Stawell Gold Mine. The Carroll's Amphibolite can be strongly magnetic as reflected by the large 4km long magnetic feature with Stavely Minerals' prospects shown along the eastern margin in Figure 2. Similarly, the Mt Ararat Granite which intrudes the Carroll's Amphibolite is contemporaneous with, and of similar composition to the Stawell Granite which likewise is in close contact with the Magdala Basalt.

The Stawell Goldfield has produced over 6 million ounces of historic and modern gold production. The modern Stawell Gold Mine has been in continuous operation since the mid 1980's and has produced in excess of 2 million ounces of gold. Stawell hosts a completely different (more predictable and continuous) style of mineralisation than that at the nuggetty and economically challenging 'ladder vein' style of gold deposits at Bendigo and Ballarat.

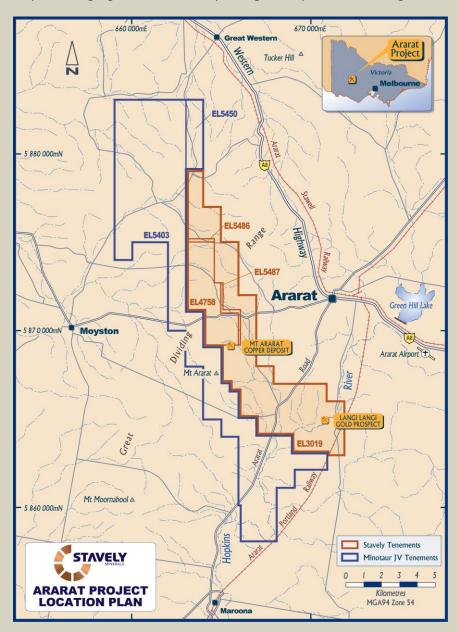


Figure 1. Tenement location map.



#### **Carroll's Base Metals Prospect**

At the Carroll's Base Metals Prospect, the Niton® results show coincident zinc, copper and chromium and a slightly offset lead soil sample anomalies, all confirmed by duplicate analysis by aqua-regia digestion and ICPMS determination anomalism. The anomaly extends over a strike length of 1.5km, is up to 500m wide and remains open to the north and south. Rockchip sampling of sub-cropping mineralisation (Figure 3) has returned very strong assay results including:

## 10.8% copper, 0.41% zinc and 1.54g/t gold

Rock-chip sampling of copper mineralised float returned extremely high assay results including:

## 24.0% copper, 1.1% zinc and 0.52g/t gold

A tabulation of rock-chip assay results is included in Appendix 2.

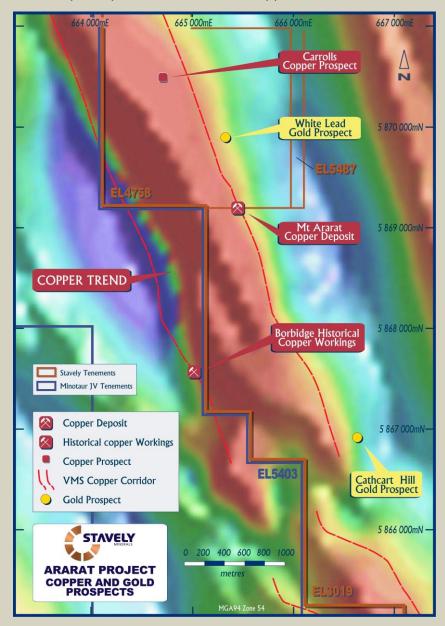


Figure 2. Prospect location map



These results from the Carroll's Base Metals Prospect demonstrate an 'orders of magnitude' spatially larger zinc-copper anomaly than that at the Company's existing Mt Ararat copper-gold-zinc deposit which has a current Inferred Mineral Resource estimate of **1.2Mt at 2.0%** copper, **0.5g/t gold, 0.4% zinc and 6g/t silver** (see Stavely Minerals' Prospectus 26 March 2014 available at www.stavely.com.au).

Soil sample zinc values in the new Carroll's Base Metals Prospect are up to 597ppm zinc while the highest value over the Mt Ararat VMS deposit was 292ppm zinc. The maximum copper result from the new Carroll's Base Metals Prospect was 182ppm while the highest value over the Mt Ararat VMS deposit was 392ppm copper. In the soil samples at least, the Carroll's Base Metals Prospect would appear to be more zinc-rich, notwithstanding the outstanding rock-chip copper grades.

The recognition that base metal/precious metal mineralisation is not restricted to a single ancient seafloor exhalative horizon, but manifests over more than a kilometre width of prospective stratigraphy dramatically opens up the 'search space' for additional base metal/precious metal mineralisation. The Company's recent joint venture agreement with Minotaur Operations Pty Ltd secures, for Stavely Minerals, additional base metals/precious metals exploration opportunities both along strike and across the breadth of the prospective stratigraphy.

The current soil sample grid will be extended in both directions and drilling is being planned.



Figure 3. Copper mineralised gossan sub-crop from the Carroll's Base Metals Prospect – this sample (and other fragments of the same) returned assays of 10.8% copper, 0.41% zinc and 1.54g/t gold.

#### Discussion

The soil sampling programmes conducted by Stavely Minerals in 2015 have identified some very significant gold and base metals discovery opportunities. Further larger-scale soil sampling programmes are planned.

The close proximity of two different styles of gold and base metal-gold mineralisation is just coincidence and good fortune. The VMS copper-zinc-gold mineralisation was exhaled onto an ancient sea floor as the stratigraphic sequence was formed some 500 million years ago. The

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gold mineralisation is likely much later and, if contemporaneous with the Stawell Gold Deposit mineralisation event, would be of the order of 425 million years ago – some 75 million years after the base metals-gold VMS event.

Stavely Minerals' Managing Director, Mr Chris Cairns, said the new discoveries were the result of a "back-to-basics" exploration programme which has yielded some impressive results from low-cost exploration activities.

"This reinforces the conviction of our team that copper-gold exploration opportunities in this part of western Victoria are abundant and that the area is hugely under-explored," he said.

"One objective of our upcoming programmes would be to link the White Lead and Cathcart Hill Prospects to demonstrate some 4-5km of 'Stawell-style' surface anomalism associated with similar rock types and structural controls to the Stawell Gold Deposit, and develop a number of big conceptual drill targets."

"As a side note, today we celebrate the first anniversary of the first day of trading of Stavely Minerals Limited on the ASX."

**Chris Cairns** 

**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 Member of the Australian Institute of Geoscientists. Mr Cairns is a full-time employee of the Company. Mr Cairns is the Managing Director of Stavely Minerals Limited, is a substantial shareholder of the Company and is an 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.

#### For Further Information, please contact:

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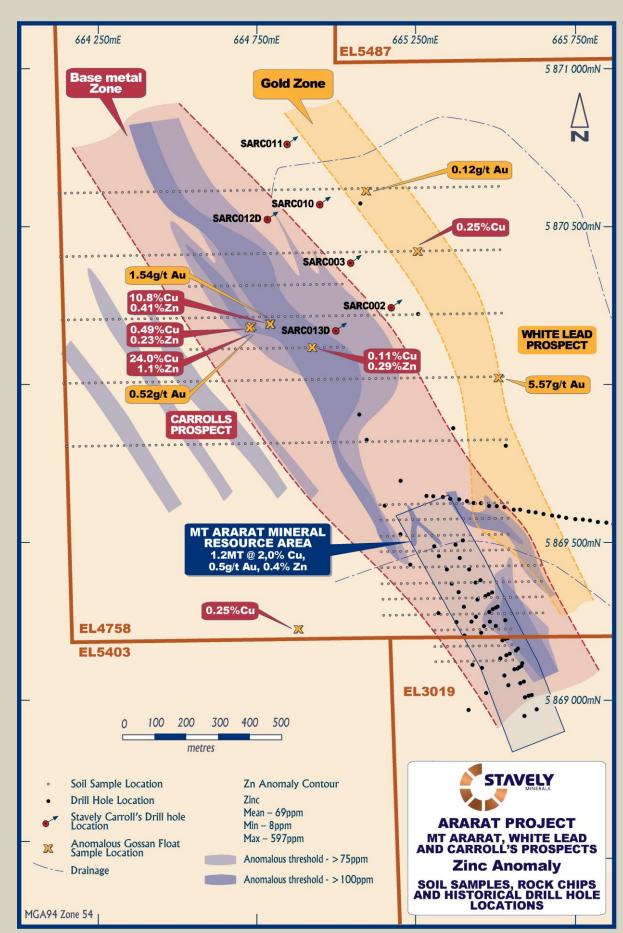
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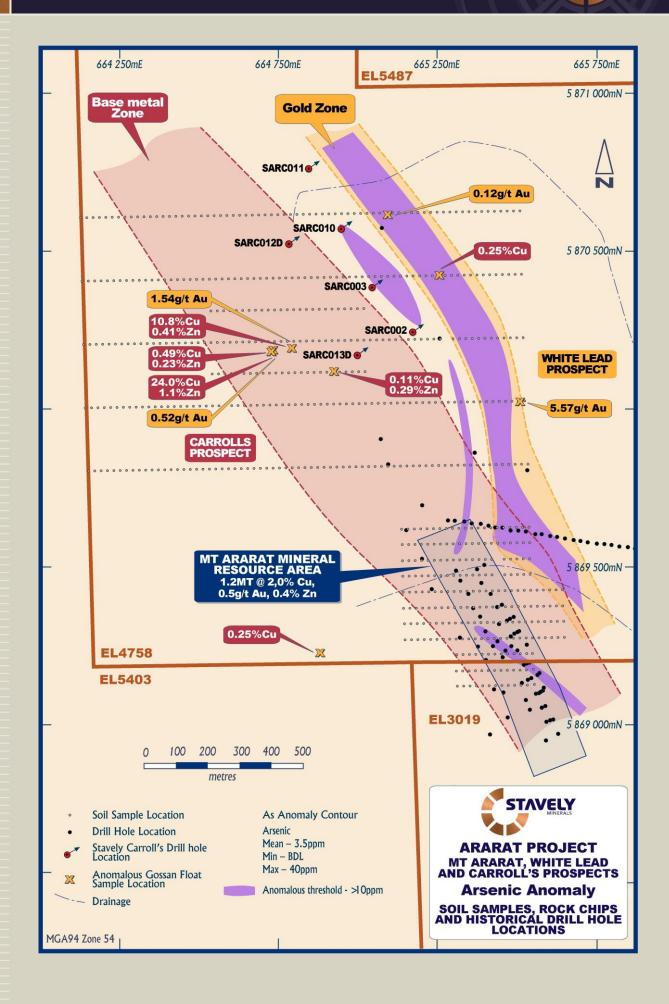
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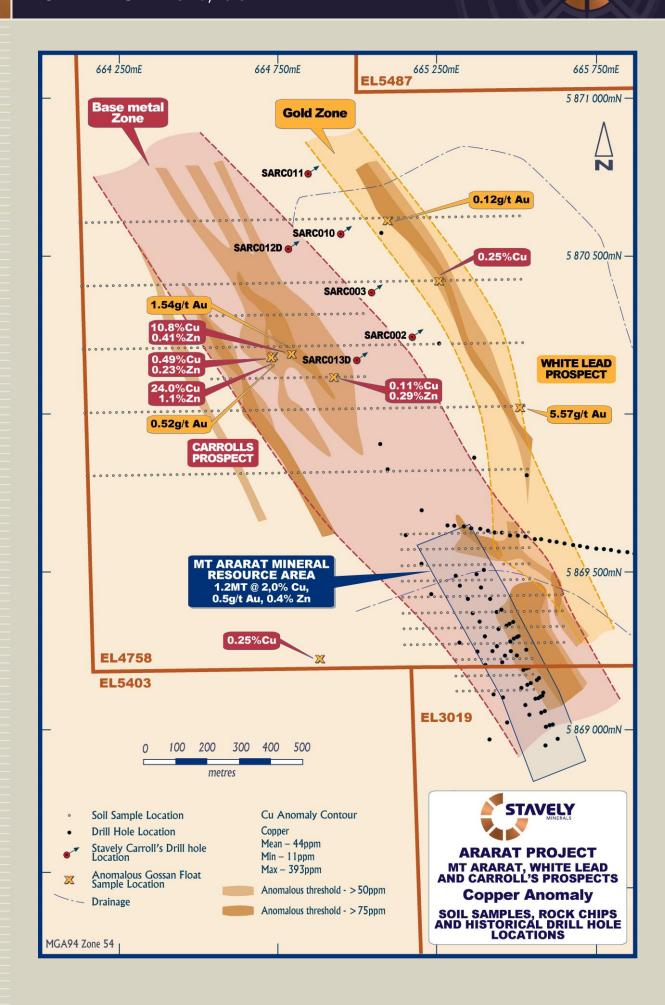
APPENDIX 1: Soil geochemical maps and rock-chip assay results and locations.





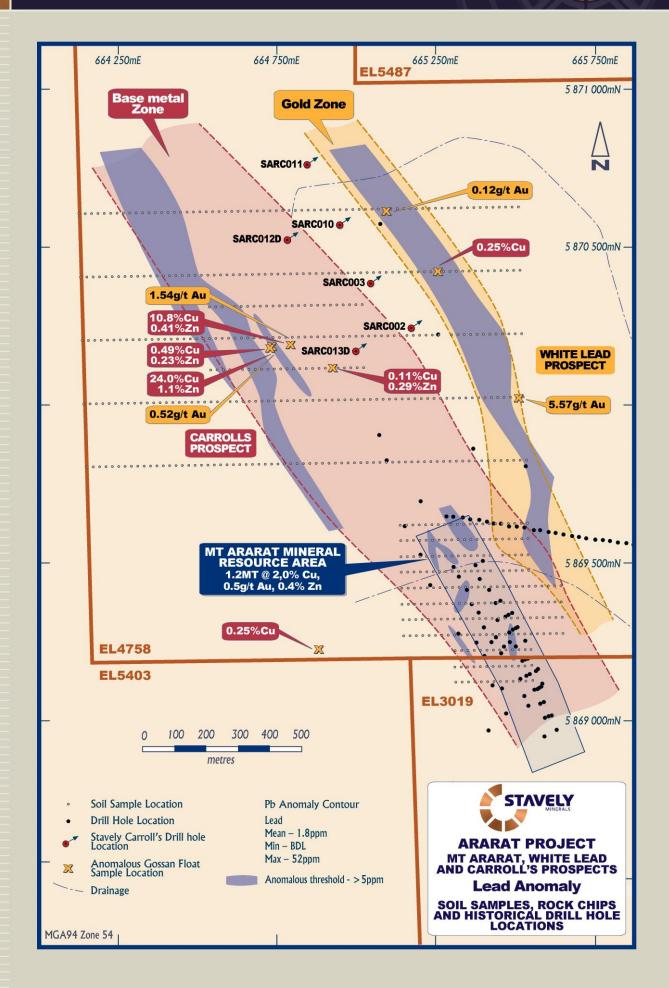




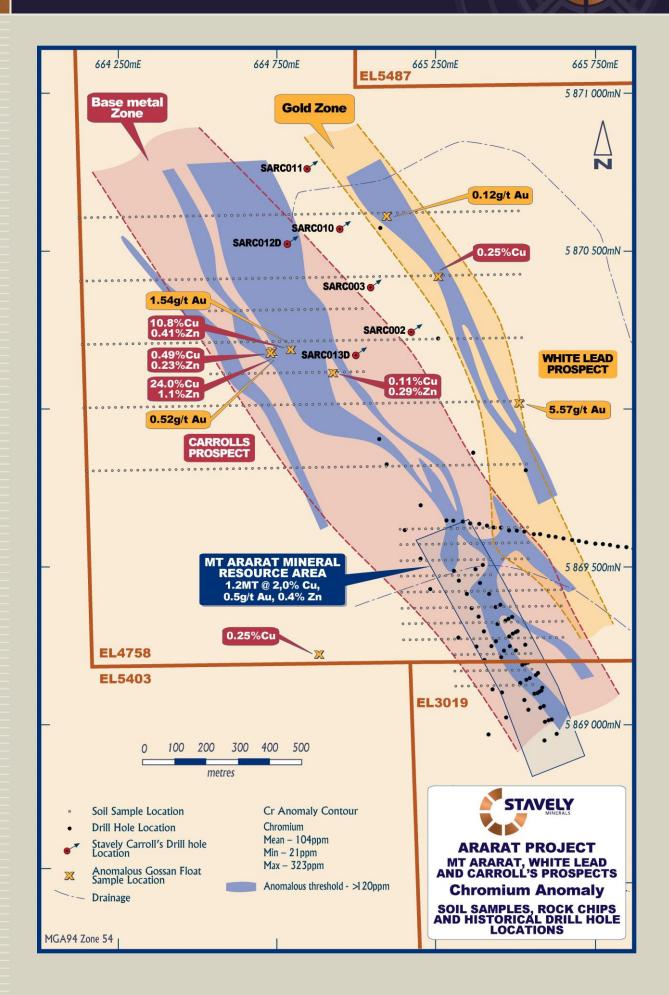
















APPENDIX 2: Rock-chip Au, Cu and Zn assay results and locations.

			Arara	at Project		
Sample ID	ple ID MGA 94 zone 54 Assays			Rock Description		
	East	North	Au ppm	Cu ppm	Zn ppm	
			DL 0.005	DL 1	DL 2	
Carroll's Base N	letals Prospec	t – Rock Chips				
ARA201501	664772	5870180	1.54	10.8%	4140	Gossan outcrop with
						malachite and azurite
ARC10012	664860	5870100	0.08	365	87	Gossanous quartz float
ARC10014	664900	5870100	<0.005	1060	2910	Gossanous rock
ARC10017	664718	5870172	0.515	24%	1.12%	Malachite float
ARC10018	664719	5870172	<0.005	355	157	Gossanous quartz float
ARC10019	664717	5870172	0.056	4870	2250	Gossanous quartz float
White Lead Gol	l d Prospect – R	ock Chips				
ARC10004	665300	5870200	0.027	52	24	Vein quartz float
ARC10005	665320	5870200	0.035	113	49	Gossanous quartz float
ARC10006	665080	5870600	0.123	202	63	Gossanous quartz float
ARC10007	665240	5870400	<0.005	2540	767	Gossan
ARC10008	665280	5870200	<0.005	738	191	Gossanous quartz float
ARC10013	665480	5870000	0.083	161	117	Gossanous quartz vein
ARC10015	664956	5870519	0.01	356	389	Gossan
ARC10016	665481	5870000	5.57	159	46	Schistose quartzite
Mt Ararat Prosp	     Dect – Rock Chi	ips				
ARC10009	665360	5869150	<0.005	573	498	Gossanous quartz vein float
ARC10010	665362	5869150	<0.005	21	21	Gossanous quartz vein float
ARA10011	665364	5869150	0.049	70	26	Schist near gossanous vein
Regional – Rock	Chin					VCIII
ARA201502	664690	5869182	0.056	2520	306	Iron rich float



# **JORC Code, 2012 Edition – Table 1**

## **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	ampling Nature and quality of	Soil and Rock Chip Sampling  The soil samples and gossanous rock chip samples were taken at the Carroll's Base Metals and White Lead Gold Prospects targeting base metal and gold mineralisation.  The soil samples were taken at 20m intervals along lines spaced between 50m and 100m apart. The grid coordinates for the samples were planned in MapInfo. A handheld GPS was used to navigate to each sample point.  Either a hand held auger or a pick was used to obtain an approximate 1kg soil sample at a depth of between 10cm and 20cm, so as to obtain a sample of the B soil horizon. The sample was then sieved using a coarse mesh (-2mm sieve to remove organic matter and rock fragments. The sieved sample was placed in a numbered zip-lock bag and subsequently into an alike numbered calico bag. A sample data sheet was filled in at the sample site, which for each sample included the date, grid, sampler names sample number, RL, soil type, regolith, substrate and comments.
		Sample preparation was completed at Stavely Minerals shed near Glenthompson. Each sample was sieved using a -80 mesh sieve to produce an approximate 40g sample and placed in a corresponding numbered small plastic geochem zip-lock bag in preparation for portable XRF analysis using a Niton XL3t 950+. The sieve was cleaned with a paint brush between each sample. Each small ziplock bag was placed sequentially in a division in an RC chip tray for ease of management. The remaining portion of the sample was returned to the original large zip-lock bag and placed back in the calico bag.
		One complete line of samples from each of the Carroll's and White Leads grids was prepared for submission to ALS Laboratories for assay analysis to check the Niton® XRF results. Preparation involved sieving using a -80 mesh sieve to produce an approximate 100g to 150g sample, which was weighed on a digital kitchen scale and was subsequently placed in a corresponding numbered brown paper geochem bag. Damp samples were placed in an oven at low temperature to dry out prior to sieving. The remaining portion of the sample was returned to the original large zip-lock bag and placed back in the calicology.

returned anomalous Niton® XRF As or Cu values were selected for submission to ALS Laboratories in Brisbane. Sample preparation involved sieving using a -80 mesh sieve to produce an approximate 100g to 150g sample which was placed in a corresponding numbered brown paper geochem bag. The remaining portion of the sample was returned to the original large zip-lock bag and

bag. The 100 – 150g -80 mesh samples were submitted to

In addition, samples which were considered to have

ALS Laboratory in Brisbane.



Criteria	JORC Code explanation	Commentary
Ontona	CONTO COUGO EXPIGITACION	placed back in the calico bag.
		RC Drill Sampling Hole SARC001 was drilled by Reverse Circulation (RC) percussion drilling 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.
		Hole SARC001 was drilled at the Mt Ararat Prospect targeting the northern extensions of the Mt Ararat coppergold-zinc VMS deposit.
		Resource Estimate Resource estimate underpinned by diamond drilling (DD) and reverse circulation drilling (RC) drilling samples.
	Include reference to measures taken to ensure sample representivity and the	Sample representivity was ensured by a combination of Company Procedures regarding quality controls (QC) and quality assurance/ testing (QA).
	appropriate calibration of any measurement tools or	Daily calibration of the Niton® XRF was undertaken.
	systems used.	Examples of QC include (but are not limited to), daily workplace and equipment inspections, as well as drilling and sampling procedures.
		Examples of QA include (but are not limited to), collection of drilling duplicates ("field duplicates"),the use of certified standards and blank samples.
	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	Soil sampling techniques are considered industry standard for the Ararat work programmes.  For RC drill hole SARC001 geological logging was completed and following visual inspection of the 1m split samples for the mineralised intervals as well as for 5m of the footwall and 5m of the hanging wall were selected for laboratory analysis.
	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	The RC drill samples were submitted to Australian Laboratory Services ("ALS") in Orange, NSW. Laboratory sample preparation involved:- sample crushed to 70% < 2mm, riffle/rotary split off 1kg, pulverize split to >85% passing 75 microns.
that has inhere problems. Und commodities of types (eg subromy warrant o	where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	RC samples analysed by ME-OG62 – ore grade four acid digest with ICPAES analysis and AA25 – fire assay with AAS finish.
Drilling techniques	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 tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	RC Drilling RC percussion drilling of SARC001 was conducted using a track mounted rig. The top drive drill used standard 6m length RC rods (4.0" diameter) and 4" slimline hammer (Sandvik 004) with a 121mm face sampling RC bit.  Resource Estimate Drilling details for the Mount Ararat resource drill hole dataset:



Criteria	JORC Code explanation	Commentary					
		Company	Drill	Number	Min	Max	Av.
			Туре		Length	Length	Length
		Pennzoil	DD	12	121	381	221
		Centaur	DD	18	27	221	83
		Mining	RC	20	28	65	48
		Beaconsfield	DD	4	111	142	121
		Gold	RC	6	18	37	27
		Total		60	18	381	96
Drill sample recovery	Measures taken to maximise sample recovery and ensure representative nature of the samples.  Whether a relationship exists between sample recovery and grade and whether sample bias may have		used. ample bisture over gathe RC timate formati ts state es in th	ion or data. that diamo	re used for as visually nation. Instruction or and holes d and oxided were co	or RC drill y checked significant o significa had relati dized min	ing was d during sample nt water  vely low eralised
			om the din row leaned ise dow has the half be to is not only the half be to include the half	rig-mounters of 10. The between rown-hole and been under bias may preferential considered ble recovery	ed cyclone ne drill cyc od-change /or cross rtaken a have od loss/gai to have	e and laid clone and es and aft contaminates yet recourred in of fine	directly sample ter each ation. egarding in hole e/coarse
Logging  Whether core and chis samples have been geologically and geotechnically logged level of detail to support appropriate Mineral Restimation, mining stuand metallurgical study or quantitative in nature (or costean, channel, photography.	•	RC Drilling For hole SAI conducted for practice. Qualimited to); lift weathering. Magnetic Sueach 1m RC seach 1m R	ollowing litative chology sceptib sample timate	g Company logging of , mineralog illity measu	y and in samples gy, altera	ndustry c including tion, vein	common (but not ing and
	, , ,	Lithological drill logs utilised. All logging for SARC001 was field estimates. Chip trays samples were collected and future reference.		001 was qu p trays wi ted and pho	th repres otographe	sentative ed then st	1m RC ored for
	The total length and percentage of the relevant intersections logged.	All RC chips logged by Sta digital capture	avely's	on-site ged			
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Resource Es Pennzoil: Is showing visib Centaur Minir MA24 to MA3 showing visib	Half-cor le mine ng: 88: Ha	lf-core sam	ples were	e taken fr	om core



Criteria	JORC Code explanation	Commentary
		unknown.  MA39A to MA58: 130mm RC chips from drilling configuration utilising back-end cross-over sub to return sample. Sample collection by splitting (details unknown) and sample reduction process unknown.  M94_1 to M94_4: Half-core samples were taken from core showing visible mineralisation. Sample reduction process unknown.  Beaconsfield Gold:  ARD001 to ARD004: diamond drilling – sampling method and reduction unknown.  ARC001 to ARC006: 84mm RC chips. Sample collected by passing through 3 tiered riffle splitter. Sample reduction process unknown.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Splitting of RC samples for hole SARC001 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.
	For all sample types, the nature, quality and appropriateness of the sample preparation	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.
	technique.	Company procedures were followed to ensure subsampling adequacy and consistency for RC drill hole SARC001. These included (but were not limited to), daily work place inspections of sampling equipment and practices, as well as sub-sample duplicates ("field duplicates").
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Duplicate analysis, blanks and certified reference materials were included in the Niton® XRF analysis process as part of the quality control procedures. Eight separate standards were employed on a 1:10 basis while duplicate analyses and blanks were employed on a 1:20 basis.
		Field duplicates, blanks and certified reference materials were submitted with the samples to the laboratory as part of the quality control procedures for RC drill hole SARC001.
	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.	No field duplicates were collected for the soil sampling.  RC field duplicates are taken at a rate of 1 per drill hole or approximately 1 in every 20 samples.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered to be appropriate to correctly represent the sought mineralisation.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Soil Samples Niton® pXRF analysis of samples was conducted with the instrument in a portable test stand and was remotely controlled by connection to a laptop computer. Each day the instrument was allowed to warm up for at least 10 minutes before being calibrated.
		Samples were sequentially stored in small zip-lock bags in 20-compartment RC chip trays. For each tray a standard was analysed at the beginning and the end of the tray. A



Criteria	JORC Code explanation	Commentary
		blank was analysed after the 10 <sup>th</sup> sample in the tray and after the end of the tray was complete and the second standard analysed, a duplicate analysis of the tenth sample was completed.
		Data was downloaded for each RC chip tray – amounting to 24 analyses with 20 samples, 2 standards, a blank and a duplicate. Each RC tray 'sequence' was saved as an individual Excel file named with the corresponding sample number range. The data from each of these files, was in sequence, saved to a master analysis electronic data sheet and sample numbers and sample type designations added.
		The sieved -80 mesh soil samples were analysed for gold by Method Au-TL43 and for a range of multi-elements, including Ag, As, Bi, Co, Cu, Fe, Mn, Mo, Ni, Pb and Zn by Method ME-ICP43 at Australian Laboratory Services ("ALS") in Brisbane, Queensland.
		No sample preparation was required by the laboratory.
		Gold by Method Au-TL43, is by aqua regia extraction with ICP-MS finish. Up to a 25g sample is digested in aqua regia, and the acid volume is partially reduced by evaporation. The solution is diluted to volume and mixed thoroughly. Gold content is measured by ICP mass spectrometry. Alternatively, an aliquot is taken, a complexing agent added and the gold complex is extracted into an organic solvent. Gold concentration can be measured by flame AAS using matrix matching standards.
		The selected multi-elements by Method ME-ICP43 are analysed by using an aliquot of the gold digestion liquor Au-TL43 for simultaneous analysis by ICP Atomic Emission Spectrometry.
		The determination of gold in soils by aqua regia digest offers very low detection limits, making it an attractive option for geochemical orientation surveys. Aqua regia effectively dissolves both native gold as well as gold bound in sulphide ore minerals.
		Aqua Regia is a partial digestion method and will not digest silicate minerals present in the sample.
		Rock Chip Samples The rock chip samples were submitted to Australian Laboratory Services ("ALS") in Orange, NSW. Laboratory sample preparation involved:- sample crushed to 70% < 2mm, riffle/rotary split off 1kg, pulverize split to >85% passing 75 microns.
		Rock chip samples were analysed by ME-ICP61 - Multi acid digest with HF and ICPAES and ICPMS and Au-AA23 - fire assay with AAS finish.
		The rock chip 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 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



Criteria	JORC Code explanation	Commentary
		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.
		The rock chip samples were also analysed for gold using Method Au-AA23. Up to a 30g sample is fused at approximately 1100°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.
		Rock chip samples which returned >1% Cu or > 1% Zn by ICPAES Analysis - Method ME-ICP61 were re-analysed for Cu and Zn by multi-element ICPAES Analysis - Method ME-OG62. A 0.4g finely pulverized sample is digested in nitric, perchloric and hydrofluoric acids. The digestion mixture is evaporated to incipient dryness (moist salts). The residue is cooled, then leached in concentrated hydrochloric acid and the solution is diluted to a final volume of 100mls. Final acid concentration is 20%. Elemental concentrations are determined by ICPAES. An internal standard is used to enhance accuracy and precision of measurement. This technique approaches total dissolution of most minerals and is considered an appropriate assay method for ore grade rock chip samples.
		RC Drill Samples  The one metre RC drill chip samples from the massive sulphide "ore" zone and 5 metres into both the foot and hanging wall were analysed by multi-element ICPAES Analysis – Method ME-OG62. A 0.4g finely pulverized sample is digested in nitric, perchloric and hydrofluoric acids. The digestion mixture is evaporated to incipient dryness (moist salts). The residue is cooled, then leached in concentrated hydrochloric acid and the solution is diluted to a final volume of 100mls. Final acid concentration is 20%. Elemental concentrations are determined by ICPAES. An internal standard is used to enhance accuracy and precision of measurement. This technique approaches total dissolution of most minerals and is considered an appropriate assay method for ore grade VMS samples.
		The massive sulphide "ore" zone RC drill chips and 5 metres into both the foot and hanging wall were also analysed for gold by Method Au-AA23. Up to a 30g sample is fused at approximately 1100°C with alkaline



Criteria	JORC Code explanation	Commentary
		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 and the gold concentration determined by flame AAS. 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 ore grade VMS samples.
		The one metre RC drill chip samples which displayed visible disseminated sulphides from the Carroll's prospect and the "non-ore zones" from the Mt Ararat prospect were submitted for analysis 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 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.
		The same samples were also analysed for gold using Method Au-AA23. Up to a 30g sample is fused at approximately 1100oC 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.
		Resource Estimate Pennzoil: A base metal suite was assayed via AAS (digestion not specified) and Au was assayed via fire assay. Centaur Mining: MA24 to MA38: A base metal suite was assayed via AAS (digestion not specified) and Au was assayed via fire assay. MA39A to MA58: A base metal suite was assayed via

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Criteria	JORC Code explanation	Commentary
Criteria	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.	AAS (digestion not specified) and Au was assayed via fire assay.  M94_1 to M94_4: A base metal suite was assayed 4 acid digest with AAS finish and Au was assayed via fire assay. Beaconsfield Gold: ARD001 to ARD004: Assay Lab – Onsite Lab Services. Cu initially by method B101 - AR digest ICP finish. If higher than 5000ppm then A101 - Ore grade digest (details unknown) with AA finish. Au by PE01S - 25g Fire Assay. ARC001 to ARC006: Assay Lab – Onsite Lab Services. Cu initially by method B101 - AR digest ICP finish. If higher than 5000ppm then A101 - Ore grade digest (details unknown) with AA finish. Au by PE01S - 25g Fire Assay.  No quality control samples submitted with any routine samples.  All the soil samples were analysed by portable XRF using a Niton XL3t 950+. The following procedure was employed for the analysis.  It was ensured that all samples were dry at the time of analysis. Any samples which displayed condensation on the inside of the plastic bag were heated in the microwave to remove all moisture.  The Niton was placed in a purpose built stand.  The Niton was set to SOILS analytical mode for the analysis.  The instrument was allowed to warm up for 10 minutes prior to the start of any analyses.  Each sample was placed in the sample chamber and analysed in soil mode for a total of 90 seconds.  The following elements and their respective errors were recorded for each sample – Mo, Zr, Sr, U, Rb, Th, Pb, Au, Se, As, Hg, Zn, W, Cu, Ni, Co, Fe, Mn, Cr, Ti, Sc, Ca, K and S.  After ever 20 samples analysed, the sample chamber was flushed with compressed air.
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks)	No calibration factors have been applied.  Soil samples  The analytical laboratory provide their own routine quality controls within their own practices. The results from their own validations were provided to Stavely Minerals.
	and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	Results from the CRM standards and the blanks gives confidence in the accuracy and precision of the assay data returned from ALS.
	2 Son Sold Million	The Niton® XRF analysis was performed by Chris Cairns, whom is trained in operating the instrument.
		For the Niton® XRF analysis for every 20 samples, one duplicate, one blank and two standards were analysed. The standards used were a combination of Niton Standards and Certified Reference Material (CRM).
		The Niton® XRF results are used only as semi- quantitative and preliminary.
		Quality control was conducted on the Niton® XRF



Criteria	JORC Code explanation	Commentary
		analysis for Cu, Cr, Zn and As, which are the primary elements of interest.
		Duplicate analysis of the sample material was undertaken to allow estimation of analytical variance over a range of element concentrations.  Statistics for the duplicates for Cu, As, Cr and Zn are presented below.
		Cu
		Precision and bias analysis Stavely Minerals Niton Cu Duplicates
		Scatter Plot  100 90 80 70 70 90 80 70 90 80 90 90 80 70 90 80 90 90 90 90 90 90 90 90 90 90 90 90 90
		Duplicate statistics
		Number of data         Original 47         Repeat 47           Maximum Minimum Mean 29.882         31.262           First quartile Median Third quartile Skewness Standard deviation Coeff. of variation         35.375         36.755           Standard deviation Coeff. of variation         15.678         17.010           Original 47         47         47           47         47         47           47         47         47           47         47         47           47         47         47           47         47         47           47         47         47           47         47         47           47         47         47           47         47         47           47         47         47           48         930         13.190           29.82         31.262         19.225           27.730         27.730         36.755           36.755         1.685         15.678           47         17.010         15.678           47         17.010         15.678
		Cr
		Niton Cr Duplicates  Scatter Plot
		y = 0.8814X+ 10.132 <sup>70</sup> 120 Original 170 220 Original 170 220

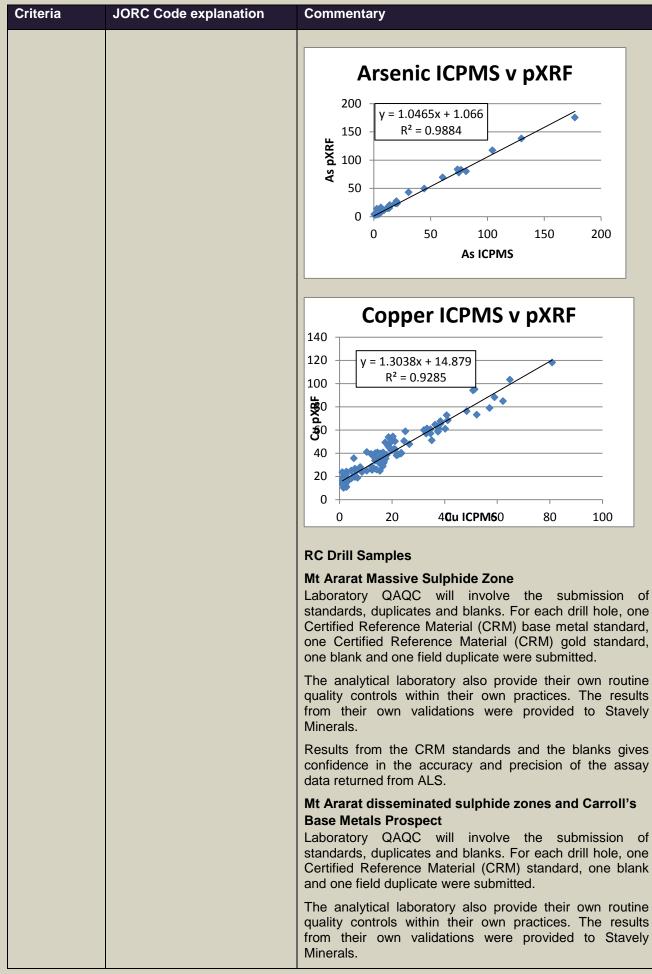


Criteria	JORC Code explanation	Commentary
		Duplicate statistics           Original A8         Repeat A8           Number of data Maximum Minimum Mean Mean Mean Pirst quartile A115.290         229.340 255.940           Mean Mean Pirst quartile Median Median Third quartile Skewness Standard deviation Coeff. of variation         63.188 61.438
		Zn Niton Zn Duplicates  Scatter Plot  180 180 180 180 180 180 180 180 180 18
		Duplicate statistics           Number of data         Original 49         Repeat 49           Maximum Mean Mean 46.476         192.150           Minimum Mean 46.476         46.415           First quartile Median 37.970         37.920           Third quartile Skewness Standard deviation Coeff. of variation         1.619           Standard deviation Coeff. of variation         0.747           0.747         0.749
		Niton As Duplicates  Scatter Plot  20 18 16 14 14 12 18 16 14 19 19 10 11 11 11 11 11 11 11 11 11 11 11 11



Criteria	JORC Code explanation	Commentary
		Duplicate statistics           Number of data         Original 20 20         Repeat 20 20           Maximum 3.250 3.350 Mean 7.319 7.388         7.319 7.388           First quartile 4.490 4.613 Median 5.870 5.750 Third quartile 8.073 8.778 Skewness 1.694 2.059         8.778 2.059           Standard deviation Coeff. of variation 0.580 0.633         0.633
		A silicon blank sample was analysed every 20 sample readings to monitor for dust contamination of the detector window. For the blanks, apart from one Cu reading of 12 ppm and one Zn reading of 6.7 ppm the remaining 46 blanks returned BDL for the elements of interest, Cu, Cr, Zn and As for all readings.
		The Certified Reference Material (CRM) was placed into the same small plastic geochem ziplock bag used for the samples, prior to it being analysed. The CRM's were selected to cover a range of expected values for the elements of interest. Two standards were analysed per 20 sample readings.
		The Niton specific standards which cover a range of values for the elements of interest, namely As, Cr, Cu and Zn and, which included TILL-4PP, 2780PP and 2709a performed well with respect to expected values and repeatability.
		The CRM material including OREAS200, OREAS45D, OREAS 901 and G907-8 performed well on the repeatability for As, Cu, Zn and Cr and were within an acceptable difference from the expected value for As and Cu. However the Cr and Zn reading varied significantly from the expected values but performed well in repeatability. It is worth noting that these standards are not certified for these elements.
		Laboratory check samples were submitted to ALS Laboratories to establish correlation with the pXRF data. One entire traverse of samples in the centre of the grid was submitted for laboratory analysis to verify the pXRF results.
		ICPMS arsenic results correlate very closely with the pXRF but there was an approximate 30% over estimation of copper abundance by the pXRF relative to the ICPMS but this did not appear to affect the relativity of anomalous samples.







Criteria	JORC Code explanation	Commentary
		Results from the CRM standards and the blanks gives confidence in the accuracy and precision of the assay data returned from ALS.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Either Stavely Minerals' managing director or technical director have visually verified significant RC drill intersections in samples from the Mt Ararat Prospect.
	The use of twinned holes.	N/A
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data was collected for soil sample and rock chip samples using a paper sample sheet. The sampling data was entered into an Excel spreadsheet. The information was then sent to a database consultant for validation and compilation into a SQL database.
		Primary data was collected for drill hole SARC001 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.
	Discuss any adjustment to assay data.	No adjustments or calibrations were made to any assay data used in this report.
Location of data points	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.	RC Drilling Drill collar locations were pegged before drilling and surveyed using Garmin handheld GPS to accuracy of +/-3m. Collar surveying was performed by Stavely Minerals' personnel. This is considered appropriate at this early stage of exploration.  For the RC drill holes downhole dip surveys were taken at approximately 30m intervals.
		Resource Estimate  Drill holes originally located according to two local grids (details unknown). Collar coordinates were converted to GDA94 zone 54S by historic workers. Conversion details are unknown. The estimate is undertaken using the supplied GDA94 54S grid references.
		GPS checking of 2 Pennzoil, 3 Centaur Mining and 4 Beaconsfield Gold hole collar locations show holes located with acceptable accuracy for reporting of Inferred Resources.
	Specification of the grid system used.	The grid system used is GDA94, zone 54.
	Quality and adequacy of topographic control.	The RL was recorded for each soil sample and drill hole location from the GPS. Accuracy of the GPS is considered to be within 5m.
Data spacing and	Data spacing for reporting of Exploration Results.	The soil spacing is prospect specific, refer to figures in text.
distribution		The drill hole spacing is project specific, refer to figures in text.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade	Resource Estimate Within the central 500m of mineralisation (strike length): Oxide mineralisation – drill tested on 50m centred section
	continuity appropriate for the Mineral Resource and Ore Reserve estimation	lines Primary mineralisation – sparsely tested by 12 holes



Criteria	JORC Code explanation	Commentary
	procedure(s) and classifications applied.	Other areas and mineralisation extent tested by 8 holes
	Whether sample compositing has been applied.	No sample compositing has been applied to the soil samples.  No sample compositing has been applied to the RC drill data.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Soil Sampling The soil sampling grid is approximately perpendicular to the strike of the lithological and structural boundaries.  RC Drilling At Mt Ararat RC holes have been orientated in an ENE (060) direction to intercept at a perpendicular angle the known VMS mineralisation and the WSW (~240°) striking and -60° dipping EM plates. The orientation of the gold mineralisation is not known.  Resource Estimate Holes drilled at 90° degrees (Azimuth) to planar
		mineralisation.  Holes angled mostly between 50° and 70° easterly.  Mineralised plane dips westerly ~60°.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	At the Mt Ararat Prospect the RC holes have been orientated in an ENE (060) direction to intercept at a perpendicular angle the known VMS mineralisation and the WSW (~240°) striking and -60° dipping EM plates and therefore is not considered to have introduced any sampling bias. The orientation of the gold mineralisation is not known.
Sample security	The measures taken to ensure sample security.	Soil Sampling The brown paper geochem sample bags containing the sieved soil samples were enclosed in a waterproof RC sample bag and packaged in a cardboard box for despatch by TNT Transport by Stavely Minerals' personnel. The samples were delivered to ALS in Brisbane, Queensland.
		Rock Chip Sampling The rock chip samples in numbered calico sample bags were packaged in a cardboard box and despatched by TNT Transport by Stavely Minerals' personnel. The samples were delivered to ALS in Orange, NSW for sample preparation. Subsequently the samples were sent to ALS in Brisbane, Queensland for analysis.
		RC Drilling The RC drill samples were delivered in closed poly-weave bags to the courier in Ararat by Stavely Minerals' personnel. The samples were couriered to ALS in Orange, NSW.
		Resource Estimate No available data to assess security.
Audits or reviews	The results of any audits or reviews of sampling	No audits or reviews of the data management system has been carried out.
	techniques and data.	Resource Estimate GPS checking of 9 hole collar locations. Basic checking of data integrity.



# **Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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.	The soil sampling, rock chip sampling and RC drilling was conducted in the Ararat Project, comprising EL4758 and EL3019. The Ararat Project was purchased by Stavely Minerals (formerly Northern Platinum) from BCD Resources Limited in May 2013. Stavely Minerals hold 100% ownership of the Ararat Project Tenements.  Mineralisation at Mt Ararat straddles the boundary between exploration licences EL4758 and EL3019.  Apart from a small area which overlaps the Ararat Hills Regional Park (not an area of interest for exploration at this stage) the tenements are on freehold land and are not
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a	subject to native title claim.  A retention licence – RL2020 was applied for over an area of interest, including the Mt Ararat, Carroll's and Cathcart Hill Prospects on EL4758 and EL3019 in June 2014.  The tenements are in good standing and no known
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	white Lead Gold Prospect The Mount Ararat Copper Deposit was discovered by Pennzoil of Australia Ltd using stream, soil and rock geochemistry followed by drill testing in the late 1970s. The exploration licence then passed to Centaur Mining & Exploration Ltd who undertook further drilling of the deposit, culminating in a Mineral Resource estimate in 1994. Centaur Mining & Exploration went into receivership in 2002 and the license passed to Range River Gold NL.  Newcrest Operations Limited explored the Ararat Project under option from Range River Gold NL and undertook gravity and airborne VTEM surveys.  BCD Metals Pty Ltd optioned the Project from Range River Gold NL in 2009 and full control was granted to BCD Metals when Range River went into voluntary administration in April 2011.  In 2009 BCD Metals drilled 4 diamond holes for a total of 484.7m, targeting shoot plunges in the primary mineralised zone beneath the oxide zone at the Mt Ararat Copper Deposit. Six reverse circulation drill holes were drilled by BCD Metals in 2010 at the Mt Ararat Copper Deposit targeting copper-oxide mineralisation and to retrieve bulk oxide ore samples for metallurgical test work. In 2010, metallurgical test work flotation and mineralogical assessment was undertaken.  Previous exploration is considered to be of good quality.  In 2014 Stavely Minerals drilled an RC hole SARC001 into the northern end of the Mount Ararat VMS deposit. Unexpectedly in the footwall to the VMS mineralisation a gold intercept of 12m @ 0.97g/t Au to eoh, within a 13 metre interval, including 3m @ 3.04g/t Au was returned.



Critorio	IOBC Code explanation	Commentary
Criteria	JORC Code explanation	Commentary
		Carroll's Base Metals Prospect Pennzoil of Australia Ltd held the tenement which covers the Carroll's Base Metals Prospect between 1973 and 1983. Pennzoil conducted soil sampling over an area to the east and south of the Carroll's Base Metals Prospect. That area, which became the Mt Ararat VMS Deposit, returned a coincident soil copper +/- zinc anomaly.
		Newcrest Operations Limited explored the Ararat Project under option from Range River Gold NL and undertook gravity and airborne VTEM surveys in 2007. The VTEM survey identified an EM anomaly which coincided with the Pennzoil soil CU and Zn anomaly.
		The work conducted by previous operators at the Mt Ararat VMS Deposit is considered to be of a high quality.
		Previous exploration is considered to be of good quality.
		Mount Ararat Resource Pennzoil: 12 holes drilled into mineralisation. Centaur Mining: 38 holes drilled into mineralisation. Beaconsfield Gold: 10 holes drilled into mineralisation Stavely Minerals: GPS checking of 9 hole collar locations
Geology	Deposit type, geological setting and style of mineralisation.	White Lead Gold Prospect The potential gold mineralisation at the White Lead Gold Prospect is considered to be analogous to the mineralisation at the Stawell Gold Mine. The host lithologies to the Stawell Gold Mine are analogous to the lithologies in the White Lead area with the local Carroll's Amphibolite considered to be the metamorphosed equivalent to the Magdala Basalt at the Stawell Gold Mine. The Mt Ararat Granite which intrudes the Carroll's Amphibolite is contemporaneous with and of similar composition to the Stawell Granite which likewise intrudes the Magdala Basalt.
		The Stawell mineralisation is strongly associated with arsenopyrite. Strong arsenic anomalism has been observed in the White Lead and Carroll's Prospects.
		The Stawell Goldfield has produced over 6 million ounces of historic and modern gold production with the modern Stawell Gold Mine having been in continuous operation since the mid 1980's and having produced in excess of 2 million ounces of gold.
		Carroll's Base Metals Prospect The Carroll's Base Metals Prospect is associated with the Cambrian volcanogenics and tholeiitic basalts of the metamorphosed Magdala Volcanics. The Carroll's Base Metals Prospect is potentially "Besshi" type volcanic massive sulphide (VMS) mineralisation which resulted "from the exhalation of sulphides onto the sea floor".
		VMS deposits are typically polymetallic massive sulphide deposits formed at or near the sea floor during submarine hydrothermal activity. They can contain stratiform to strata-bound concentrations of copper, zinc, lead, gold and silver, depending on the geological setting of the deposits, and often form clusters of deposits. Those formed in dominantly basalt sequences in back-arc tectonic settings tend to be copper- and zinc-rich and are often referred to as "Besshi" type.



Criteria	JORC Code explanation	Commentary
		Mount Ararat Resource Steeply westerly dipping, single planar massive sulphide horizon (historically described as VMS).
Information mater of the include follow Mater	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:  o easting and northing of the drill hole collar o elevation or RL	RC Drilling Data for the drill hole SARC001 is provided in the plans in the body of text.  Resource Estimate 60 holes drilled in the prospect, 55 holes intercepted mineralisation, 5 holes define the strike extent of mineralisation.  Collar locations verified as acceptable through field checking of 9 holes.
	(Reduced Level – elevation above sea level in metres) of the	Downhole surveys for describing hole trace and sample locations available for 16 holes:
	drill hole collar    dip and azimuth of the hole    down hole length and interception depth    hole length.	HoleID Number of DH Surveys Hole  ARD001 3 111.3 PENZ001 1 132.8  ARD002 6 114.2 PENZ003 1 151.6  ARD003 5 141.6 PENZ006 1 152.4  ARD004 5 117.6 PENZ009 1 218.5  M94_1 4 220.7 PENZ010 1 252.3  M94_2 4 198.0 PENZ011 1 381.2  M94_3 3 192.0 PENZ011 1 381.2  M94_4 4 204.2 PENZ021 3 364.4  M94_4 4 204.2 PENZ023 4 329.4  Assaying of those samples logged with visible sulphide mineralisation.  Lithology logs available for all holes.  Oxidation state available for 34 Centaur Mining holes.  Summary moisture data available for 18 Centaur Mining RC holes.  39 SG measurements taken from 4 Beaconsfield Gold
information is justified basis that the informa not Material and this does not detract from understanding of the the Competent Perso	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.	holes ARD[001-004].  No material drill hole information has been excluded.
Data aggregation methods In reporting Exploration Results, weighting averagin techniques, maximum and/o minimum grade truncations (eg cutting of high grades) and cut-off grades are usua Material and should be state		RC Drilling No top-cutting of high grade assay results has been applied, nor was it deemed necessary for the reporting of significant intersections.  Resource Estimate Assay sample intervals:
		Drill   Count of Sample Lengths   Type   0.0 to 0.5m   0.5 to 1.0m   1.0 to 1.5m   1.5 to 2.0m   2.0 to 2.5m   2.5 to 3.0m   3.0 to 3.5m   Total   DD   102   85   14   6   1   1   209   RC   1   284



Criteria	JORC Code explanation	Commentary
	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.	All RC drill samples are 1m intervals.
	The assumptions used for any reporting of metal equivalent values should be clearly stated	No metal equivalent values are used for reporting exploration results.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.  If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	RC Drilling RC hole SARC001 was orientated in an ENE (060) direction to intercept at a perpendicular angle the known VMS mineralisation and the WSW (~240°) striking and -60° dipping EM plates and therefore the copper intercepts are considered to represent true widths of mineralisation.  The orientation of the gold mineralisation is not known.  Resource Estimate No apparent association when data assessed by drill type and mineralisation style breakdown.  Significant relationship differences when assessing DD vs RC holes:  Drill Type Number Total Average Average Grade (ppm) of Holes Metres Intercept Cu Au Ag Zn Diamond 34 82 2.4 31123 0.95 9.1 4384 Reverse Circulation 26 145 5.6 15551 0.23 1.7 1614  Smearing and/or preferential loss and/or cross-contamination of samples may be present in RC drill sample assay dataset.  Preferential loss of friable non-mineralised material may have biased the DD drill sample assay dataset.  Both the RC and DD datasets may be preferentially weighted by material with significantly different tenor of in situ grade.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	The true width for the gold intercept in SARC001 is not known.
Diagrams	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.	Refer to Figures in body of text.  A plan view of the soil sample and rock chip locations is included.  Resource Estimate  Historic cross sections and plans were reviewed.



Criteria	JORC Code explanation	Commentary
		Long section thickness and drill hole trace figure:    Mount Ararat Mineralised Domain (view to NE)   Thickness Contours   14m   12m   10m   10m   8m   6m   4m   3m   2m   2m   1m   0m   0m   1m   0m   0m   1m   0m   0
Balanced reporting	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.	Soil Sampling Anomalous thresholds are shown in the attached plans.  Resource Estimate Selective sampling of holes where mineralisation observed considered acceptable for estimating sulphide resources. Any gold or silver mineralisation intercepted by drilling with no associated sulphides will not be identifiable in the current dataset.
Other substantive exploration data	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.	All relevant exploration data is shown on figures and discussed in the text.  Resource Estimate  A further 53 holes have been drilled within the exploration tenements.
Further work	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.	White Lead Gold Prospect and Carroll's Base Metals Prospect The current soil sample grids will be extended and three diamond drill holes have been planned to follow-up the anomalous gold intercept in SARC001 at the White Lead Gold Prospect.  Mount Ararat Resource Mineralisation thins but is open at depth and opportunities for defining drilling targets (thick shoots).



# **Section 3 Estimation and Reporting of Mineral Resources**

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

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.  Data validation procedures used.	Data management protocols and provenance unknown. Limited cross checks with paper records of drill hole and assay data. Field verification of 9 hole collar locations. Relational and spatial integrity assessed and considered acceptable.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.  If no site visits have been undertaken indicate why this is the case.	Not undertaken by CP.  Stavely Minerals' personnel verify existence of core. CP has viewed photos of chip trays with mineralisation taken by Stavely Minerals' Personnel.
Geological interpretation	Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.  Nature of the data used and of any assumptions made.  The effect, if any, of alternative interpretations on Mineral Resource estimation.  The use of geology in guiding and controlling Mineral Resource estimation.  The factors affecting continuity both of grade and geology.	Single planar mineralised massive sulphide body interpreted and modelled for grade interpolation.  Oxide state modelled and utilised for reporting of resource estimate.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	Mineralisation extends for a strike length of 830m (towards 335deg), vertically for 350m and ranges mostly between 1m and 3m thick (total massive + sub-massive + stringer mineralisation). The mineralisation is modelled between 4m and 14m thick in the upper 50m (this may be real, due to supergene actions or introduced due to the suspected wet/difficult RC drilling conditions).  The block model and grade estimate encompasses the extent of the mineralisation.
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and	Copper, gold, silver and zinc grades were interpolated into a VulcanTM non-regular block model with 10x10x10 metre parent blocks — subblocked to 1x1x1 metre minimum block dimensions.  1m composite intervals utilised.  Grades greater than:

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Criteria	JORC Code explanation	Commentary
	maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	6%Cu, 2.50ppmAu, 15ppmAg, 1%Zn, were restricted to inform blocks within a 55m radius of their location.
	The availability of check estimates, previous estimates and/or mine production	Single pass ID2 interpolation run employed utilising 400m sample search within the plane of mineralisation.
	records and whether the Mineral Resource estimate	Minimum of 20 and maximum of 40 composites utilised to estimate grade.
	takes appropriate account of such data.	The Mt Ararat Resource is classified as Inferred under the guidelines set out in the 2012 JORC Code.
	The assumptions made regarding recovery of by-products.	
	Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	
	Any assumptions behind modelling of selective mining units.	
	Any assumptions about correlation between variables.	
	Description of how the geological interpretation was used to control the resource estimates.	
	Discussion of basis for using or not using grade cutting or capping.	
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content	15 of 18 RC holes drilled by Centaur Mining encountered wet drilling through the mineralisation. Grade profiles suggest down hole smearing of grade (crosscontamination) in the oxide/supergene mineralisation.
	and motorial of the first of th	Core recovery averages 85% through the oxide/weathered mineralisation, down from >97% recorded for the supergene and primary mineralisation. There is no information or data to assess the affect core loss has on grade.



Criteria	JORC Code explanation	Commentary
Cut-off parameters	The basis of the adopted cut- off grade(s) or quality parameters applied.	The resource is reported by mineralisation thickness and oxidation state. Cuts of 0.5%, 1.0% and 2.0% copper were applied. These breakdowns and grade tonnage plots are reported to allow differing economic assessment on the project.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	Not applied, however resource is reported at 1m and 2m thicknesses and by oxidation state to allow for assessment of both underground and open cut mining methods.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	Not evaluated as risks associated with historic data over-riding feature affecting the confidence of the estimate.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be	Not evaluated as risks associated with historic data over- riding feature affecting the confidence of the estimate.



Criteria	JORC Code explanation	Commentary
	well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	A single tonnage factor of 3.17 tonnes/m <sup>3</sup> was applied to all mineralisation.
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.	
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.  Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).  Whether the result	The estimate is classified as Inferred under the JORC Code (2012 Edition). Absence of QA/QC and important data for evaluating risk to the estimate (such as recover and moisture versus grade) are key factors in assigning an Inferred Classification.
	appropriately reflects the Competent Person's view of the deposit.	
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	No Audit or Review of estimate undertaken.
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed	Not undertaken other than that stated under the classification section.



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	appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	