

16 DECEMBER 2021

**ASX/MEDIA RELEASE** 

# CONSTELLATION MAIDEN MINERAL RESOURCE

- Maiden Mineral Resource for the upper 200m of the Constellation deposit totalling 3.3 million tonnes at 1.4% copper, for 47,000 tonnes of copper metal, including:
  - Indicated Mineral Resource for high-grade Supergene mineralisation of 0.5 million tonnes at 3.4% copper, for 18,000 tonnes of copper metal; and
  - Indicated and Inferred Mineral Resource for Sulphide (Primary) mineralisation of 1.4 million tonnes at 1.6% copper, for 23,000 tonnes of contained copper<sup>1</sup>
- The Mineral Resource represents the potential open pitable portion of the deposit – optimisation of pit design underway
- An Exploration Target has been defined for primary mineralisation below the reported Mineral Resource

Established Australian copper-gold producer and explorer, Aeris Resources Limited (ASX: AIS) (Aeris or the Company) is pleased to announce a maiden Mineral Resource estimate for the Constellation deposit, located within the Company's 100% owned Tritton tenement package in New South Wales, of 3.3 Mt at 1.4% copper (47kt contained copper). In addition, an Exploration Target has been defined for the primary mineralisation below the current Mineral Resource down to RL-350m, approximately 750m down-plunge from the base of the Mineral Resource:

	Table	1 –	Constellation	deposit	<b>Exploration Target</b>	
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Cu Domain	Tonnage Range (kt)	Cu Grade Range (%)	Cu Metal Range (kt)
Primary	6,000 - 8,000	1.7 – 2.2	100 - 180

The potential quantity and grade of the Exploration Target is conceptual in nature and is therefore an approximation. There has been insufficient exploration drilling to estimate a Mineral Resource and it is uncertain if further exploration will result in the

<sup>&</sup>lt;sup>1</sup> See Table 2 below for breakdown of the Resource categories

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estimation of a Mineral Resource. The Exploration Target has been prepared and reported in accordance with the 2012 edition of the JORC Code.

Aeris' Executive Chairman, Andre Labuschagne, said "This maiden Mineral Resource and Exploration Target for the Constellation deposit confirms our long-held view that Constellation is a significant copper deposit and will play an important role in extending the life of our Tritton Copper Operation."

"To go from initial discovery to maiden Mineral Resource in just over 12 months is a fantastic outcome by our exploration team. What is also exciting is that Constellation remains open down-plunge."

"Resource definition drilling continues and we are targeting to deliver an updated Mineral Resource by the end of the March 2022 quarter. In parallel, the various option studies are progressing well, including metallurgical test work. Preliminary indications from the metallurgical test work appear positive and we are targeting to deliver detailed results by the end of January 2022."

## CONSTELLATION MINERAL RESOURCE ESTIMATE

The Constellation Mineral Resource estimate totals 3.3 Mt at 1.4 percent copper, 0.3 gram per tonne gold, for 47,000 tonnes of copper metal and 36,000 ounces of gold metal (see Table 2).

able 2: December 2021 Constellation Mineral Resource2.3.									
	DECEMBER 2021 CONSTELLATION MINERAL RESOURCE								
Mineralisation type	Resource category	Cut-off grade (Cu%)	Tonnage (kt)	Cu (%)	Αυ (g/t)	Ag (g/†)	Cu metal (kt)	Au metal (koz)	Ag metal (koz)
	Measured		-	-	-	-	-	-	-
Oxide	Indicated	0.2	1,400	0.4	0.2	0.8	6	7	35
	Inferred		-	-	-	-	-	-	-
	Measured	0.3	-	-	-	-	-	-	-
Supergene	Indicated		500	3.4	0.3	1.2	18	5	20
	Inferred		-	-	-	-	-	-	-
	Measured	0.3	-	-	-	-	-	-	-
Primary sulphide	Indicated		400	1.9	0.7	3.7	7	9	45
Sublide	Inferred		1,000	1.5	0.5	2.4	16	15	81
	Measured		-	-	-	-	-	-	-
	Indicated		2,300	1.3	0.3	1.3	31	21	100
TOTAL	Inferred	various	1,000	1.5	0.4	2.4	16	15	81
	Total		3,300	1.4	0.3	1.7	47	36	181

#### Table 2: December 2021 Constellation Mineral Resource<sup>2,3</sup>.

<sup>&</sup>lt;sup>2</sup> Mineral Resource figures are reported within a constraining pit shell applying the following metal price and exchange rate assumptions: USD\$4.00/lb Cu, USD\$1,700/oz Au and AUD:USD 0.75.

<sup>&</sup>lt;sup>3</sup> Discrepancy in summation may occur due to rounding.



The Mineral Resource represents the shallow, potentially open pitable portion of the deposit to 200m below surface, and has been reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 (JORC Code).

The Mineral Resource is based on an exploration and resource definition drill program totalling 144 drill holes and includes oxide (copper hydroxides), supergene (chalcocite) and primary copper (chalcopyrite) mineralisation. The Mineral Resource estimate is reported within a constraining pit shell at differing cut-off grades: the oxide Mineral Resource is reported at a 0.20% copper cut-off grade; and the supergene (chalcocite) and primary sulphide (chalcopyrite) domains are reported at a 0.30% copper cut-off grade. A summary of all assumptions used for reporting the Mineral Resource are included in Appendix B.

The resource model is reported to an Indicated and Inferred Mineral Resource category and is located in the upper 200m of the known Constellation deposit, which has been the focus of the majority of drilling completed to date. Indicated Mineral Resource is reported from areas within the conceptual pit shell with a drill density up to 40m x 40m. The geological interpretation is consistent between drill sections and grade distributions are understood. Inferred Mineral Resource is based on a nominal drill spacing up to 80m x 80m, providing a conceptual understanding of the geological framework and grade distribution within the conceptual pit shell.

# CONSTELLATION EXPLORATION TARGET

An Exploration Target of 6Mt – 8Mt at a copper grade of between 1.7% and 2.2% (contained copper metal between 100kt to 180kt) has been defined for the primary sulphide mineralised system beneath the reported Mineral Resource at the Constellation deposit (Table 3).

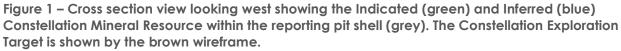
#### Table 3: Constellation Exploration Target

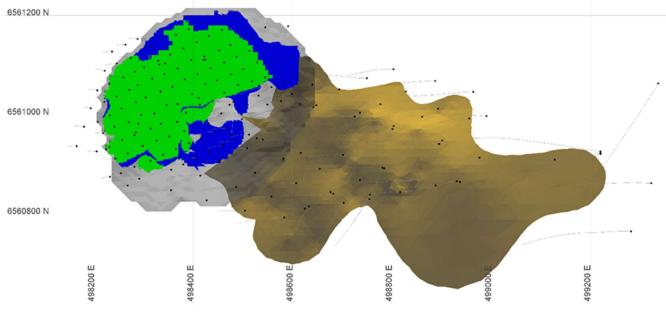
Cu Domain	Cu cut-off	Tonnage Range	Cu Grade	Cu Metal
	(%)	(kt)	Range (%)	Range (kt)
Primary	0.80%	6,000 - 8,000	1.7 – 2.2	100 - 180

The Exploration Target represents the down plunge continuation of the reported Mineral Resource at Constellation, starting from approximately 200m below surface and extending down plunge approximately 750m (RL-350m) below the reported Mineral Resource (Figures 1 and 2).



The Exploration Target is based off 63 diamond drill holes totalling 20,092m, of which 31 drill holes are awaiting assay results. Drill spacing varies widely from 40m x 80m to >80m x >160m. The remaining diamond drill holes with pending assays have been used to constrain the primary sulphide wireframe based on geological logging of copper sulphide intersections. Based on visual observations, the copper sulphide intersections are similar to sulphide intervals with returned assays. The visual intersection widths are considered appropriate for modelling the wireframe geometry and volume. The Exploration Target was estimated via an Ordinary Kriged (OK) interpolation method within a 0.30% copper grade shell. Dimensions of the primary copper domain vary based on drill coverage.





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Based on the current available data it is not possible to convert the down plunge primary sulphide mineralisation to a Mineral Resource category. However, the data does allow for a conceptual geological interpretation and geology model to support an Exploration Target. The resource definition drill program at Constellation is expected to be completed early 2022 with an updated Mineral Resource estimate expected towards the end of the March 2022 quarter. The intent of the updated Mineral Resource is to convert the Exploration Target to a Mineral Resource.



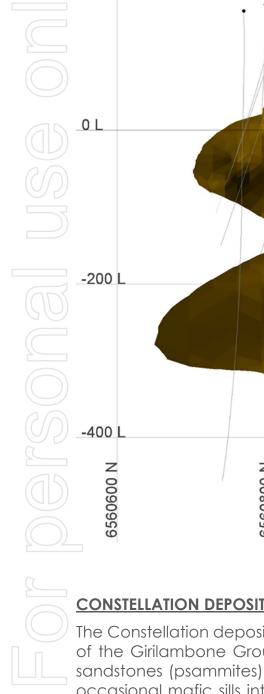


Figure 2 – Long section view looking northwest showing the Indicated (green) and Inferred (blue) Constellation Mineral Resource within the reporting pit shell (grey). The Constellation Exploration target is shown by the brown wireframe.

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# **CONSTELLATION DEPOSIT - GEOLOGY**

The Constellation deposit is hosted within 'early to mid' Ordovician meta-sediments of the Girilambone Group, a sequence of highly deformed and strongly foliated sandstones (psammites), quartzite, pelites, phyllite, chert and graphitic shales with occasional matic sills intruding. Regional metamorphism of sediments is lower-tomiddle greenschist facies, with abundant chlorite, muscovite and quartz. The deformation history of the area has resulted in multiple generations of folding and the formation of two prominent foliations. North-west trending mafic volcanic units, intrusive rocks and late-Silurian to Devonian gabbroic dykes crosscut the Girilambone Group metasediments.



The Constellation deposit bares marked similarities with other copper deposits discovered within the Tritton Copper Operations tenement package, including the large Tritton (+20Mt) and Murrawombie (+15Mt) deposits. These mineralised systems are typically constrained by structural and lithological elements and form elongate pipe-like bodies.

Deposits in the area, including Constellation, appear to correlate with zones of structural complexity and regional scale fold closures, with mineralisation occurring late in the structural deformation events. Folding and faulting in these structural domains has allowed for dilation and subsequently the concentration of enriched fluids to precipitate copper+/-gold+/-silver mineralisation within stratigraphic zones with a marked competency contrast.

The mineralisation style at Constellation comprises massive to disseminated sulphides with pyrite, chalcopyrite and minor pyrrhotite in the sulphide zone. There are also well-developed oxide and supergene mineralised horizons. Within the oxide domain, dominant copper minerals include malachite and azurite with minor chrysocolla and native copper. Underlying the oxide horizon is a supergene domain which is dominated by the presence of chalcocite.

The highest copper grades occur in quartz-rich zones with chalcopyrite breccia-infill, and in chalcocite domains. The mineralised system plunges moderately to the south-east (30°) and consists of two main structural domains, one dipping moderately to the east and the other steeply to the south. On the northern edge of the mineralised system in the south-dipping domain, distinctive graphite and carbonate units have been identified below the sulphide mineralisation.

The Constellation mineralised system has been traced 1,000m down plunge and up to 300m along strike. The deposit remains open down plunge. Previously reported downhole electromagnetic (DHEM) surveying detected two large conductive bodies which extend below the base of drilling. Copper sulphide mineralisation was intersected from drilling targeting one of the modelled DHEM plates, providing strong evidence the Constellation deposit continues further down plunge below current drilling.

## Drilling and sampling techniques

Exploration and resource definition drilling has been undertaken using Reverse Circulation (RC) and Diamond Drilling (DD) methods. RC pre-collars with diamond drill tails (RCD) has also been used. Assays from RC, RCD and DD drilling were included in the dataset used to inform the resource model.

The Constellation deposit includes a total of 110 RC holes and 78 diamond holes for a total of 33,423.5m, of which 22,104.8m are diamond core (66%). All drilling at the Constellation deposit was completed by contractor DRC, for Aeris. Drilling to 200m below surface is primarily via RC drilling on a nominal 20m x 20m drill spacing. Below



200m, all drilling has been completed via diamond drilling with the drill spacing varies from  $80m \times 80m$  to  $>80m \times >160m$ .

Diamond drill core is generally selected at 1.0m intervals. At geological boundaries (based on lithology, sulphide textures and visual chalcopyrite content) the sample length can vary between a minimum of 0.5m and a maximum 1.4m.

All diamond drill core was halved with a core saw, with one half dispatched for analysis and the other half retained. Half core samples were sent to a certified sample preparation and assay laboratory. Upon arrival at the laboratory each sample was weighed and recorded. Samples greater than 3kg are crushed via a Boyd crusher (90% passing 2 millimetres) and rotary split to a sub-sample between 2 to 3kgms. The sub-sample was pulverised via a LM5 to 80% passing 75µm. A 300g sample was taken from the pulverised material for assaying. Samples less than 3kg are crushed via a jaw crusher to 70% passing 6 millimetres and the whole sub-sample is pulverised in a LM5 with a 300g sub-sample taken for assaying.

All RC samples are logged at 1 metre intervals. The on-site geologist determines whether 1 metre samples or 4 metre composite samples are collected for laboratory analysis. The intent is to ensure samples which are within or proximal to copper mineralisation are sampled at 1 metre intervals. 1 metre samples are collected from the cyclone splitter off the RC drill rig. Sample recoveries from the RC drill program are on average greater than 90%. An assessment of recovery was made at the drill rig during drilling and has been determined via visual observations of sample return to the cyclone.

Sample blanks and industry standards are routinely submitted at a frequency of 1:20. Duplicates and pulps are retained and re-submitted periodically o test assay reproducibility.

## **Modelled Domains**

All geological wireframes used for the resource model are based on 1m composited drill hole data. A majority of wireframes are based on grade shells with the exception of the weathering profiles and copper speciation wireframes. For each element estimated (copper, gold, silver, zinc, sulphur and iron) distinct populations were identified from statistical analysis and grade distributions viewed spatially in 3D. The copper domains created included a 0.15% copper shell within the oxide domain, supergene domain (based off copper sequential assays) and two 0.3% copper shells below the base of oxidation which represent the primary sulphide (chalcopyrite) mineralisation. For the remaining elements estimated their grade distribution trends broadly followed copper trends. For each of the remaining elements grade shells were created at appropriate cut-off grades as determined via statistical analysis of each element.



#### **Estimation parameters**

Data validation, QA/QC, geological interpretation, geological modelling and resource estimation has been completed internally by Aeris Resources. An external consultant was used to review the geological rationale for the copper estimation domains and assist with constructing each copper wireframe.

All data collected from the exploration and resource definition drill program at Constellation is stored within the Company's AcQuire database.

Ordinary Kriging (OK)using 1m composite data was used to estimate copper, gold, silver, zinc, iron and sulphur within a block model with a parent block size of 10.0m (east) x 10.0m (north) x 10.0m (RL). The block model is sub-celled to a 1.0m x 1.0m x 1.0m size to ensure accurate volumes are reported from each estimation domain. Grade estimates within each sub-block are awarded the parent block grade. Kriging neighbourhood analysis was performed to determine an appropriate block size and sample selection protocols.

The application of a top-cut was considered for each estimation domain (mineralised and background) for all elements. Most estimation domains applied a top-cut to exclude anomalous high grades. The assessment of top-cuts was completed via statistical analyses (histogram distribution, lognormal probability plots, summary statistics) and reviewing the spatial location / continuity of grade trends. All contacts are treated as hard domain boundaries based on reviewing grade trends between adjoining estimation domains. A variety of different search parameters and variogram models were used as deemed appropriate for the specifics of each estimation domain.

The resource model was validated via visual and statistical methods using a variety of methods which included comparing declustered composite data against the OK block estimates within each estimation domain.

#### Mineral Resource Classification

The December 2021 Constellation resource model has been classified as Indicated and Inferred. The resource classification criteria used was based on drill density and the confidence in the geological interpretation.

Indicated Mineral Resource is reported from areas with a drill density up to 40m x 40m with a good understanding of the geology and copper grade continuity. Inferred Mineral Resource is classified within areas with a wider spaced drill spacing up to 80m x 80m. Geological understanding is appropriate on a global level and there is some understanding of grade continuity between drill holes.



# Cut-off grade / reporting criteria

The Mineral Resource is reported within a whittle optimisation pit shell. Cost assumptions inputs for the pit shell include:

- USD\$4.00/lb copper
- USD\$1,700/oz gold
- Exchange rate 0.75

The Mineral Resource is reported at two different cut-off grades within the pit shell reflecting different processing streams. The oxide domain is reported at a 0.2% copper cut-off grade. The underlying supergene and primary sulphide domains are reported at a 0.3% copper cut-off grade. The increased cut-off grade assumes processing via the existing Tritton processing plant. Processing of the oxide domain is assumed to be via heap leach. Heap leach operations were previously carried out in the Tritton tenement package at the Murrawombie deposit during the 1990s to early 2000s.

## This announcement is authorised for lodgement by:

Andre Labuschagne Executive Chairman

#### ends

For further information, please contact: Mr. Andre Labuschagne Executive Chairman Tel: +61 7 3034 6200, or visit our website at www.aerisresources.com.au

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### **About Aeris**

Aeris Resources Limited (ASX: AIS) is a diversified mining and exploration company headquartered in Brisbane. The Company has a growing portfolio of copper and gold operations, development projects and exploration prospects. Aeris has a clear vision to become a mid-tier mining company with a focus on gold and base metals, delivering shareholder value.

Aeris' Board and management team bring decades of corporate and technical expertise in a lean corporate structure. Its leadership has a shared, and highly disciplined focus on operational excellence, and an enduring commitment to building strong partnerships with the Company's workforces and key stakeholders.

In FY22 Aeris is forecasting to produce between 21,000 and 22,000 tonnes of copper from its Tritton Copper Operation in New South Wales, and between 67,000 and 71,000 ounces of gold from its Cracow Gold Operation in Queensland.

## Previous Information

The information in this announcement that relates to previously reported exploration results for the Constellation deposit is extracted from ASX announcements all of which are available on the company's website at <u>www.aerisresources.com.au</u>. The company confirms that it is not aware of any new information or data that materially affects the exploration results included in the relevant original market announcements. The Company confirms that the form and context in which the Competent Person and Qualified Person's findings are presented have not been materially modified from the relevant original market announcements.

# **Competent Persons Statement**

The information in this report that relates to Exploration Targets, Exploration Results or Mineral Resources is based on information compiled by Mr Brad Cox. Mr Cox confirms that he is the Competent Person for all Exploration Results, summarised in this Report and he has read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Targets, Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). Mr Cox is a Competent Person as defined by the JORC Code, 2012 Edition, having relevant experience to the style of mineralisation and type of deposit described in the Report and to the activity for which he is accepting responsibility. Mr Cox is a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM No. 220544). Mr Cox has reviewed the Report to which this Consent Statement applies and consents to the inclusion in the Report of the matters based on his information in the form and context in which it appears. Mr Cox is a full time employee of Aeris Resources Limited.

Mr Cox has disclosed to the reporting company the full nature of the relationship between himself and the company, including any issue that could be perceived by investors as a conflict of interest. Specifically, Mr Cox is entitled to 2,578,921 Performance Rights issued under the Company's equity incentive plan (details of which were contained in the Notice of Annual General Meeting dated 20 October 2020). The vesting of these Performance Rights is subject to certain performance and employment criteria being met.



Hole ID	Easting <sup>1</sup> (m)	Northing <sup>1</sup> (m)	RL (m)	Dip°	Azimuth°2	Total Depth (m)	Туре
TAKD001	498,725	6,560,996	161.7	-70	260	319	Diamond
TAKD003	498,801	6,560,971	161.5	-70	260	360.5	Diamond
TAKD004	498,750	6,561,073	162.2	-70	260	279.3	Diamond
TAKD005	498,785	6,560,892	161.4	-70	260	355	Diamond
TAKD006	498,701	6,560,919	161.8	-70	260	300	Diamond
TAKD007	498,895	6,560,941	161.1	-70	260	429.9	Diamond
TAKD008	498,896	6,560,941	161.0	-85.3	268.4	39.4	Diamond
TAKD009	498,641	6,561,015	162.0	-70	260	243.9	Diamond
TAKD010	498,777	6,561,021	161.6	-70	260	285	Diamond
TAKD011	498,937	6,560,865	160.8	-60	260	438	Diamond
TAKD012	499,128	6,560,909	160.3	-60	264	501.6	Diamond
TAKD013	499,220	6,560,926	160.1	-60	268	582.6	Diamond
TAKD014	499,220	6,560,923	159.9	-60	252	650	Diamond
TAKD015	499,221	6,560,921	160.0	-70	246	651.8	Diamond
TAKD016	498,861	6,560,996	161.4	-70	260	342.8	Diamond
TAKD017	498,956	6,560,992	155.0	-70	260	380	Diamond
TAKD018	498,893	6,561,012	161.4	-70	260	348.8	Diamond
TAKD019	498,557	6,561,056	162.5	-70	260	250	Diamond
TAKD021	498,616	6,560,923	162.1	-70	285	261.7	Diamond
TAKD022	498,736	6,560,868	161.7	-70	260	320	Diamond
TAKD023	498,977	6,560,913	160.7	-70	260	411.7	Diamond
TAKD024	498,817	6,560,845	161.2	-70	260	370	Diamond
TAKD025	498,615	6,561,021	162.2	-64	245	300.7	Diamond
TAKD026	498,682	6,560,841	162.4	-70	260	307.9	Diamond
TAKD027	498,603	6,561,080	162.6	-70	260	249.8	Diamond
TAKD028	498,694	6,561,051	162.1	-70	260	250	Diamond
TAKD029	498,648	6,561,019	161.9	-70	208	250	Diamond
TAKD030	498,736	6,561,004	161.6	-70	208	291.6	Diamond
TAKD031	498,804	6,560,977	161.4	-70	218	336	Diamond
TAKD032	498,902	6,560,948	161.1	-70	218	414.7	Diamond
TAKD033	498,583	6,560,793	163.3	-70	260	300	Diamond
TAKD034	498,607	6,560,862	162.6	-70	260	207.6	Diamond
TAKD035	498,524	6,560,883	163.2	-70	260	201.7	Diamond
TAKD036	498,452	6,560,907	163.4	-70	260	147.3	Diamond

# Table 1 – Summary of drill holes used to model the Constellation Exploration Target.



	TAKD037	498,755	6,560,830	161.9	-70	260	327.5	Diamond
	TAKD038	498,427	6,560,827	164.6	-70	260	196.1	Diamond
$\geq$	TAKD039	498,557	6,560,835	163.5	-70	260	184.7	Diamond
- [	TAKD040	498,931	6,560,866	161.0	-70	260	405	Diamond
	TAKD041	498,582	6,560,912	162.8	-70	260	220	Diamond
	TAKD042	498,888	6,560,857	161.3	-70	260	400	Diamond
	TAKD043	498,655	6,560,891	162.5	-70	260	260	Diamond
	TAKD044	498,625	6,560,810	163.3	-70	260	215	Diamond
	TAKD045	498,828	6,561,047	162.1	-70	260	280	Diamond
)	TAKD046	498,677	6,560,844	162.7	-60	260	285.6	Diamond
	TAKD047	498,991	6,560,997	161.3	-70	260	370	Diamond
2 L	TAKD048	498,781	6,560,893	161.8	-70	260	355	Diamond
)	TAKD049	498,640	6,561,061	162.7	-70	260	226	Diamond
	TAKD050	498,756	6,560,839	161.9	-70	198	336.6	Diamond
	TAKD051	498,703	6,560,823	162.8	-68	200	292.6	Diamond
3	TAKD052	498,633	6,560,815	163.3	-70	200	256	Diamond
2 L	TAKD053	498,964	6,561,046	161.8	-70	260	353.1	Diamond
	TAKD054	498,887	6,561,068	162.1	-70	260	321.6	Diamond
	TAKD055	498,803	6,561,091	162.5	-70	260	279.6	Diamond
))	TAKD056	498,486	6,560,855	164.1	-70	260	219	Diamond
	TAKD057	498,414	6,560,877	164.6	-70	260	176	Diamond
2	TAKD058	498,504	6,560,807	164.2	-70	260	170	Diamond
	TAKD059	498,355	6,560,848	165.5	-70	260	150	Diamond
	TAKD060	498,508	6,560,933	163.1	-70	260	168.8	Diamond
	TAKD061	499,282	6,560,765	155.0	-70	260	651.3	Diamond
)) [	TAKD062	499,323	6,560,862	155.0	-70	260	612.4	Diamond
	TAKD072	498,591	6,561,178	162.0	-50	190	250	Diamond
	TAKD075	499,337	6,561,063	162.0	-70	200	612.7	Diamond
7	TAKD076	498,540	6,560,950	162.0	-70	220	166	Diamond

<sup>1</sup> Easting and northing coordinates are reported in AGD66 Zone 55

<sup>2</sup> Azimuth is recorded as a magnetic azimuth reading.



## APPENDIX B:

JORC Code, 2012 Edition – Table 1 Section 1 Sampling Techniques and Data Constellation drill program

1	Criteria	Commentary
1	Sampling	RC Program
	techniques	<ol> <li>All samples have been collected from reverse circulation (RC) drilling.</li> <li>The supervising geologist nominated, based on visual information, whether to collect 1m sample, or 4m composite sample. Im samples were collected directly off the cyclone splitter. 4m composites were collected by "spearing" the bulk sample collected for each metre. Where any 4m composite samples returned anomalous assay data, including where elevated in mineralisation, the 1m samples from each of the composite were sent for analysis.</li> <li>The intent is to ensure samples which are within or proximal to mineralisation are sampled at 1m intervals.</li> <li>Blanks, Standards and Field duplicates were used at a frequency rate of 1:20 per sample.</li> <li>Samples were sent to an independent and accredited laboratory (ALS).</li> </ol>
1		Diamond Program
)		<ol> <li>All samples were collected from diamond drill core.</li> <li>Samples were taken across intervals with visible sulphides, inclusive of 30m either side. Samples collected fell between 0.4m to 1.4m in length. Sample lengths take into consideration lithologic bounds.</li> </ol>
1	Drilling techniques	RC Program
)		<ol> <li>Drilling results are reported from RC samples.</li> <li>Drill holes completed use a 5-inch diameter drill bit.</li> </ol>
		Diamond Program
)		<ol> <li>Drilling results are reported from diamond drill core.</li> <li>Drill holes completed are either drilled at a HQ diameter or a HQ and NQ diameter. Drill holes TAKD001 and TAKD002 were drilled via HQ and NQ diameter. Drill holes from TAKD003 to TAKD014 were drilled via HQ diameter core.</li> </ol>
)	Drill sample	RC Program
]	recovery	<ol> <li>Sample recoveries from the RC drill program is on average greater than 90%. An assessment of recovery was made at the drill rig during drilling and has been determined via visual observations of sample return to the cyclone.</li> <li>Water has been intersected in a small number of drill holes. Those holes reporting water were halted, and the completion of those holes utilised a diamond tail.</li> <li>Samples collected from holes reporting water are considered representative.</li> <li>No sample bias was observed.</li> </ol>



Criteria	Commentary
	Diamond Program
	<ol> <li>Core recoveries are recorded by the drillers on site at the drill rig. Core recoveries are checked and verified by an Aeris Resources field technician and/or geologist.</li> <li>Diamond drill core was pieced together during the core orientation process. During this process the depth intervals were recorded on the core and cross-checked against the downhole depths recorded by drillers on the physical core blocks in the core trays.</li> <li>Historically the core recoveries have been very high across each of the Company's known deposits.</li> <li>All drill holes completed at the Constellation deposit report good core recoveries through the mineralised horizon.</li> <li>When core loss has been experienced across the Constellation deposit it generally occurs within fault structures. The fault structures are interpreted to post date mineralisation and either contain no mineralisation or minor immaterial amounts of remobilised chalcopyrite.</li> </ol>
	<ol> <li>All RC chips and diamond drill core has been logged by an Aeris Resources geologist or a fully trained contract geologist under Aeris supervision.</li> <li>Diamond core and RC chips are logged to an appropriate level of detail to increase the geological knowledge and further develop the geological understanding at the Constellation deposit, and greater regional relationships.</li> </ol>
)	RC Program
	<ol> <li>Each 1m sample interval was geologically logged, recording lithology, presence/concentration of sulphides and alteration.</li> <li>All geological data recorded during the logging process is stored in Aeris Resources' AcQuire database.</li> <li>Chip trays are stored onsite in a dry and secure facility.</li> </ol>
	Diamond Program
	<ol> <li>All diamond core has been geologically logged, recording lithology, presence/concentration of sulphides, alteration, and structure.</li> </ol>
	<ol> <li>All geological data recorded during the core logging process is stored in Aeris Resources' AcQuire database.</li> <li>All diamond drill core was photographed and digitally stored within the Company's network.</li> <li>The core is retained in core trays, after all sampling, and labelled with downhole meterage intervals and drill hole ID and stored in the Company's designated core storage area.</li> <li>Stored core location is recorded and digitised within the Company's computer network.</li> </ol>
Sub-sampling techniques and sample preparation	<ul> <li>RC Program</li> <li>1. All samples have been collected in a consistent manner with the same method. 1m samples are collected from the cyclone splitter. The on-site geologist determined the 1m samples, or the 4m composite samples, were collected for laboratory analysis.</li> </ul>



<ol> <li>Field duplicates have been collected at a rate of 1:20.</li> <li>Replicate samples have been collected using a 1/8 splitter.</li> <li>Standards and blanks are inserted at a frequency rate of 1:20.</li> <li>The sample size is considered appropriate for the style of mineralisation and grain size of the material being sampled.</li> <li>Diamond Program</li> </ol>
Diamond Program
Diamona riogram
<ol> <li>All samples have been collected in a consistent manner with the same method. Samples were cut using an automatic core saw.</li> <li>Half core samples have been collected between nominated sample lengths ranging from 0.4m and a maximum length of 1.4 metres.</li> </ol>
<ol> <li>No field duplicates have been collected, however, ½ core is retained if further testing may warrant it.</li> <li>The sample size is considered appropriate for the style of mineralisation and grain size of the material being sampled.</li> </ol>
RC Program
<ol> <li>All samples have been sent to ALS Laboratory Services (ALS) at their Orange facility for sample preparation.</li> <li>Samples are split via a riffle splitter.</li> <li>A ~3kg sub sample is collected and pulverised to a nominal 85% pageing 75 microps.</li> </ol>
<ul> <li>passing 75 microns.</li> <li>Samples are assayed via ALS analytical method ME-OG46, an aqua regia digest with an ICP finish.</li> <li>Elements reported via ME-OG46 include Cu, Ag and Zn. Au assaying is via a 30g fire assay charge (Au-AA22) using an AAS finish. If an Au assay exceeds 1g/t Au a second 30g sample is assayed via Au-AA26 - a more accurate analytical method for Au assays exceeding 1g/t Au.</li> <li>QA/QC protocols include the use of blanks, duplicates, and standards (commercial certified reference materials used). The frequency rate for each QA/QC sample type is 1:20.</li> </ul>
Diamond Program
<ol> <li>All samples have been sent to ALS Laboratory Services at their Orange facility.</li> <li>TAKD001 to TAKD010: Samples are analysed by a 3-stage aqua</li> </ol>
<ul> <li>regia digestion with an ICP finish (suitable for Cu 0.01-1%) – ALS method ME-ICP41. Samples with Cu assays exceeding 1% are resubmitted for an aqua regia digest using ICP-AES analysis – ALS method ME-OG46. Au analyses are completed on a 30g fire assay fusion with an AAS finish (suitable for Au grades between 0.001-10ppm) – ALS method Au-AA22. If a sample records an Au grade above 1ppm a second sample will be re-submitted for another 30g fire assay charge using ALS method AuA25 (0.01-100ppm).</li> <li><b>TAKD011 onwards:</b> Cu and Ag assays reported from TAKD011 were assayed via the ALS method ME-OG46 only. Au assays were completed using the same protocols described above i.e. Au-A22. If Au grade &gt;1 g/t then use analytical method Au-AA25 for those particular samples.</li> </ul>



Criteria	Commentary
	<ul> <li>(commercial certified reference materials used).</li> <li>5. The frequency rate for sampling was conducted throughout the mineralisation zone (+30m above and below) and every 1m in every 10m for the remainder of the hole has retained a QA/QC at a nominal 5% standard/blank usage per sample taken.</li> </ul>
Verification of	RC and Diamond Programs
sampling and assaying	<ol> <li>Logged drillholes are reviewed by the logging geologist and a senior geologist. All geological data is logged directly into Aeris Resources' logging computers following the standard Aeris Resources geology codes. Data is transferred to the AcQuire database and validated on entry.</li> <li>Upon receipt of the assay data no adjustments are made to the assay values.</li> <li>The data file is directly uploaded into the Acquire system utilising a simplified macro scripting.</li> <li>Validation of the standards and blanks have been assessed to correlate within a two standard deviation spread for each group prior to accepting the sample/assay dispatch for use by the Company.</li> </ol>
Location of data points	<ol> <li>Drillhole collar locations are initially collected on a handheld GPS unit with an accuracy of approximately +/- 5m. Registered surveyors have visited site on several occasions and surveyed the collar locations for each drill hole using a DGPS.</li> <li>All drillhole locations are collected in Australian Geodetic Datum 66 zone 55.</li> <li>Quality and accuracy of the drill collars are suitable for quantitative results.</li> <li>Downhole surveys are completed by the drill contractor. RC drill holes TAKRC001 – TAKRC003 were surveyed using a Reflex Multishot camera. Survey information is taken at the completion of each hole at 20m or 30m intervals. All other RC holes were reported using a Reflex gyroscopic tool measuring azimuth and dip orientations every 30m, or shorter intervals if required. Down hole surveying of diamond drill holes are completed using a Reflex gyroscopic tool measuring azimuth and dip orientations every 30m, or shorter intervals if required.</li> </ol>
Data spacing and	RC Program
distribution	<ol> <li>The drill holes have been designed to test for mineralisation within the oxide and supergene mineralised horizons.</li> <li>RC drilling completed at the Constellation deposit was designed initially on a nominal 40m x 40m drill pattern. Drill holes with logged visual sulphides have been followed up with infill RC holes at a nominal 20m x 20m spacing.</li> <li>A 20m x 20m nominal drill spacing over the oxide and supergene horizon is considered sufficient to understand the spatial distribution of copper mineralisation for conversion to a Mineral Resource.</li> </ol>
	Diamond Program
	1. The drill holes have been designed to test for mineralisation within



Criteria	Commentary
	<ul> <li>the bounds of the modelled MLTEM plate.</li> <li>2. Drilling completed at the Constellation deposit is designed on a nominal 80m x 80m drill pattern.</li> <li>3. Some in-fill drilling has occurred at a 40m x 40m nominal drill spacing over the shallow sulphide and is considered sufficient to understand the spatial distribution of copper mineralisation for addition to the Mineral Resource.</li> <li>4. From 200 metres below surface approximately half of the completed diamond drill holes are awaiting assay results. Until they are returned and integrated into the geology model / grade estimate this portion of the deposit can not be classified as a Mineral Resource.</li> </ul>
Orientation of data in relation to geological structure	<ol> <li>RC and Diamond Programs</li> <li>All drillholes are designed to intersect the target at, or near, right angles to the modelled placement.</li> <li>A majority of drillholes completed have not deviated significantly from the planned drillhole path.</li> <li>A limited number of RC drill holes intersected water within the mineralised zone and were abandoned. Those holes were extended via diamond drilling at a later date.</li> <li>Drillhole intersections through the target zone(s) are not biased.</li> </ol>
Sample security	<ol> <li>RC and Diamond Programs</li> <li>Drill holes sampled at the Constellation deposit will not be sampled in their entirety.</li> <li>Sample security protocols follow current procedures which include: samples are secured within calico bags and transported to the laboratory in Orange, NSW via a courier service or with Company personnel.</li> </ol>
Audits or reviews	<ul> <li>RC and Diamond Programs</li> <li>1. Data is validated when uploading into the Company's AcQuire database, as stated above as part of the QA/QC review of assay importing, correlating the standards and blanks within a standard deviation.</li> <li>2. No formal audit has been conducted.</li> </ul>



#### Section 2 Reporting of Exploration Results Constellation Deposit

Criteria	Commentary
Mineral tenement and land tenure status	<ol> <li>The Aeris Resources Regional Tenement package is located approximately 45km northwest of the township of Nyngan in central western New South Wales.</li> <li>The package consists of 8 Exploration Licences and 4 Mining Leases. The mineral and mining rights are owned 100% by the Company's subsidiary, Tritton Resources Pty Ltd.</li> <li>The Constellation deposit is located within EL6126, EL8084 and EL8987. All three exploration licences are in good standing and no known impediments exist.</li> </ol>
Exploration done by other parties	<ol> <li>There has not been a significant amount of exploration completed over and around the Constellation deposit. Burdett Exploration NL held the ground between May 1971 – May 1972 however conducted no work over the area. Nord Pacific Limited (Nord) held the ground under EL3930 between 1991 – 2002 and identified several GeoTEM EM anomalies further north beyond the Constellation deposit. Nord completed two lines of surface geochemistry sampling over each GeoTEM EM anomaly. No further work was completed following the geochemical sampling program. The Geochem results did not warrant any further work. No on- ground exploration has been completed over the area since 2002.</li> </ol>
Geology	<ol> <li>Regionally, mineralisation is hosted within early to mid-Ordovician meta sediments, forming part of the Girilambone group. Mineralisation is hosted within a lower greenschist facies, ductile deformed pelitic to psammitic sediments, and sparse zones of coarser sandstones.</li> <li>Sulphide mineralisation within the Aeris Resources tenement package is dominated by banded to stringer pyrite – chalcopyrite, with a massive pyrite-chalcopyrite unit along the hanging wall contact. Alteration assemblages adjacent to mineralisation is characterised by a silica sericite hanging wall and an ankerite footwall, nearby a notable graphitic unit and carbonate representative strata.</li> </ol>
Drillhole information	<ol> <li>All drill hole collar details used to inform the Constellation Exploration Target are included in this report. All drill holes used for the resource model have been disclosed previously and can be referenced from the Aeris website.</li> </ol>
Data aggregation methods	1. N/A
Relationship between mineralisation widths and intercept lengths	<ol> <li>Drillholes are designed to intersect the target horizon across strike at or near right angles.</li> <li>The mineralised domains trend north-east and dip gently to the south- east.</li> <li>A majority of drilling completed at the Constellation deposit are orientated 260° (magnetic azimuth) and dipping between 60° to 70°. The hole designs are intended to intersect the mineralised system close to right angles and drill intersections represent true thicknesses (or close to). Recent geological interpretation has identified a folded sub- vertical copper lens. Drilling through the sub-vertical body is sub- parallel. Four scissor holes have been completed to provide more optimal drill intersections to assist with understanding the geometry of</li> </ol>



	Criteria	Commentary
		the mineralised system. No down hole thicknesses from drill hole intersections through the sub-vertical body are referenced in this report.
	Diagrams	1. Relevant diagrams are included in the body of the report.
	Balanced reporting	<ol> <li>The reporting is considered balanced, and all material information associated with the electromagnetic surveys has been disclosed.</li> </ol>
	Other substantive exploration data	1. There is no other relevant substantive exploration data to report.
)	Further work	<ol> <li>Drilling will continue at the Constellation deposit with one drill rig until early CY 2022.</li> </ol>

# Section 3 Estimation and Reporting of Mineral Resources Constellation Mineral Resource

Criteria	Commentary
Database integrity	1. All assay results are logged against unique sample numbers. A sampling sheet detailing sample numbers and core / RC intervals is completed prior to sample collection. During the sampling process each sample interval is cross-referenced to the sample number and checked off against the sampling sheet. Pre-numbered bags are used to minimize errors. Assay data is received via email in a common electronic format and verified against the AcQuire database.
	2. Data validation and QA/QC procedures are completed by staff geologists. Geology logs are validated by the core logging geologist. Assay data is not uploaded to the corporate Acquire database until all QA/QC procedures have been satisfied.
Site visits	<ol> <li>Brad Cox (Aeris Resources – General Manager Geology) has made several site visits. Site visits included inspecting Constellation RC drill chips and diamond drill core.</li> </ol>
Geological interpretation	<ol> <li>The confidence in the Constellation geology model is relatively high within the reporting pit shell. The geological interpretation is based on 144 drill holes within the Constellation deposit.</li> <li>The geological understanding of the mineralised system within the reported Mineral Resource is for the most part well understood. Copper mineralisation forms in three discrete horizons being; 1) oxide domain (hydroxide copper minerals), supergene (chalcocite) and primary (chalcopyrite). The mineralised system forms a tabular body striking NNE-SSW and dipping gently to the SE. Sections of the mineralised system are intensely deformed and folded. This is apparent along the northern margin of the known deposit. The deposit forms a sub-vertical, elongated E-W trending zone. Further work is required to fully understand the geometry change and copper distribution within the zone.</li> <li>Data used for the geological interpretation includes drill hole data. There are not significant assumptions made other than the</li> </ol>



Criteria	Commentary
	<ul> <li>interpreted orientation. Mineralisation is easily visible from the host turbidite sequences. The geometry of the mineralised system is understood at drill spacings up to 80m x 80m.</li> <li>4. Estimation domains used for the resource estimate are based on interpreted geology defined from drill core. Cu estimates are constrained within grade shells at 0.15% copper (within the oxide domain), 0.3% copper (primary domain). The supergene domain is based off copper sequence assay data. Assay data was included within the supergene domain if sample lengths exceeded 50% cyanide soluble copper. All wireframes were generated in Leapfrog Geo 3D modelling software.</li> <li>5. Mineralisation is still open at depth below the modelled wireframe solids.</li> </ul>
Dimensions	<ol> <li>The Constellation mineralised system is tabular in nature with an overall down dip length of 1,100 metres with mineralisation still open at depth. Mineralisation begins from 4 metres below surface (~160mRL). The mineralised lodes vary in thickness averaging from 1-25 metres and dips between 30° - 35° SE. Strike extents vary from 100m to 300m.</li> </ol>
Estimation and modelling techniques	<ol> <li>Ordinary kriging was used to estimate all variables (Cu, Au, Ag, Zn, S and Fe). Ordinary Kriging is an appropriate grade interpolant for this style of mineralisation. Vulcan software was used for explanatory data analysis, variography and grade estimation. Top- cut analyses were completed on all elements / estimation domains using a combination of statistical (histograms and log normal probability plots) and spatial location of grade trends.</li> <li>Estimation was either performed in 2 or 3 passes depending on the search size and dimensions of the estimation domain. Estimation pass 1 was generally set at 70% of the variogram range, estimation pass 2 set at 140% of variogram range and estimation pass 3 was designed to populate all remaining blocks within the estimation domain.</li> <li>All estimates within each estimation domain are validated against declustered composites. Mean grade estimates that fall within 5% of the declustered composite mean grade are considered acceptable. If the difference is outside a 5% tolerance then the estimation and/or decluster cell size is reviewed and changes made if necessary.</li> <li>No assumptions have been made for the recovery of gold and silver by-products.</li> <li>Other variables estimated included Au, Ag, Fe, S, Zn and bulk density.</li> <li>The parent block sized used for the updated estimate was 10m (E) x 10m (N) x 10m (RL) with sub celling down to 1m (E) x 1m (N) x 1m (RL). The cell size takes into consideration drill spacing and grade variability in different orientations.</li> <li>No correlation has been made between variables.</li> <li>The distinction between background Cu and Cu associated with mineralisation was defined from a combination of geology/textural logging and population distributions associated with log probability</li> </ol>



Criteria	Commentary
	<ul> <li>selected to define the bounding Cu estimation domain. Geological domains were modelled and tested against each other (geological interpretation, descriptive statistics, QQ plots and contact plots) to determine whether they could be incorporated into one domain or separated. This approach was used for each variable estimated. Domain boundaries were treated as hard domains whereby only composite data associated with an estimation domain is used for estimation.</li> <li>10. Drillhole data from each variable was reviewed within each estimation domain to determine whether top cuts are required. Top cuts were applied based on histogram and log probability distributions and spatial location of composite data. Top cuts were applied based on clear disconnects between data populations from histogram and log probability plots and spatially where the anomalous composites. Mean grade estimates that fall within 5% of the declustered composite cuts are considered acceptable. If the difference is outside a 5% tolerance then the estimation and/or decluster cell size is reviewed and changes made if necessary. Estimates were also validated visually in Vulcan displaying block estimates and composite data. Swath plots on 20m levels were also created showing block estimates and declustered composite data in the X, Y and Z directions for each</li> </ul>
Moisture	variable estimated. 1. Tonnages are estimated on a dry basis.
Cut-off parameters	<ol> <li>The reported Mineral Resource is reported within an optimized Whittle pit shell at USD\$4,00/lb Cu and USD\$1,700/oz Au metal prices at an exchange rate of AUD:USD 0.75.</li> <li>Within the pit shell blocks are reported above a copper cut-off grade. A 0.2% copper cut-off is used for reporting oxide mineralisation. A 0.3% copper cut-off is used to report the underlying supergene and primary sulphide domains within the pit shell.</li> <li>The different cut-off grades used are based on different processing costs. A heap leach processing option is assumed for</li> </ol>
	the oxide domain. Heap leaching has been a successive processing method used previously at the nearby Murrawombie deposit in the 1990s to early 2000s. Processing of the supergene and primary sulphide domain is assumed to be via the existing Tritton processing plant (flotation).
Mining factors or assumptions	<ol> <li>Copper mineralisation at the Constellation deposit occurs from 4- 5m below surface. It is assumed the deposit would initially be mined via conventional open pit mining techniques.</li> </ol>
Metallurgical factors or assumptions	<ol> <li>Metallurgical recovery assumptions for copper are based off current processing recoveries at the Tritton Copper Operation and historical reports from the Murrawombie heap leach operation from the 1990s to early 2000s. Metallurgical recovery assumptions are:         <ul> <li>Oxide</li> <li>90%</li> <li>Supergene</li> <li>92%</li> </ul> </li> </ol>



Criteria	Commentary	
	o Chalcopyrite 92%	
Environmental factors or assumptions	<ol> <li>No environmental factors or assumptions have been incorporate into the reporting of the Mineral Resource estimate for the Constellation deposit.</li> </ol>	
Bulk density	<ol> <li>A total of 2,782 bulk density measurements have been collected from diamond drill core samples at the Constellation depose Samples selected for bulk density measurements have been collected across all oxidation states and material types.</li> </ol>	sit.
	<ol> <li>Dry bulk density (density) was assigned by oxidation state ar material type. An average density value was assigned within ea- domain based on a statistical review of available dens measurements.</li> </ol>	ch
	<ol> <li>Bulk density values were measured using the Archimedes Princip Method' (weight in air v's weight in water). Varying forms silicification is present throughout the mineralised system an porosity associated with the turbidite host sediments is negligib</li> </ol>	of nd
	Vugs have been noticed within the drill core on rare occasion Technically the bulk density determination method does n consider for the presence of vugs. Given they have only be observed on the rare occasion and are not correlatable to speci	not en fic
	<ul> <li>zones they are not considered to represent a material problem w current bulk density determinations.</li> <li>4. Bulk density has been estimated from the bulk densimated measurements. For material outside the mineralised domains a average density value for the host material has been assigned.</li> </ul>	sity an
Classification	<ul> <li>based on the density of unmineralised turbidite sediments i.e. 2.7</li> <li>Classification of the resource estimate has been guided</li> </ul>	'0. by
	confidence in the geological interpretation and drill density. The Constellation Mineral Resource has been classified as Indicate and Inferred.	
	<ol> <li>The drill and input data density is reasonable in its coverage for the style of mineralisation and estimation techniques to allo confidence for the tonnage and grade distribution to the levels Indicated and Inferred.</li> </ol>	w
	<ol> <li>The Constellation geology interpretation/model and resource estimate appropriately reflects the competent persounderstanding of the geological and grade distributions at the Constellation deposit.</li> </ol>	ons
	4. Indicated Mineral Resource is reported from areas within the	he nd
	based on a nominal drill spacing up to 80m x 80m, providing conceptual understanding of the geological framework and grad distribution within the conceptual pit shell.	a de
Audits or reviews	<ol> <li>External reviews and audits have not been conducted on the Constellation Mineral Resource estimate. The current geologic interpretation and estimation domain assumptions have been reviewed by an external independent expert. No fatal flaws significant issues were identified.</li> </ol>	cal en



Criteria	Commentary
Discussion of relative accuracy/ confidence	1. The models have been validated visually against drilling and statistically against input data sets for each estimation domain. The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC code.
	2. The Indicated Mineral Resource is appropriate for mine level evaluation. The Inferred Mineral Resource is appropriate for an understanding of the global estimate and broad grade trends beyond mine level scale.
	3. No mining has taken place at Constellation and hence no reconciliation data is available for comparison and forward projections of tonnage / grade performance from the Mineral Resource model.