www.kglresources.com.au

22 August, 2019

Significant upgrade of copper resources at KGL's Jervois Copper Project

Highlights

- **Indicated copper increased from 50% to 65% of total copper resources, strengthening confidence levels**
- **Resulting from the success of infill drilling at Reward and Rockface deposits in upgrading Inferred to Indicated Resources**
- **Important progress towards establishing an Ore Reserve, essential for final project development approval.**

Copper Mineral Resources have been significantly upgraded at the Jervois Copper Project in the Northern Territory, 100% owned by KGL Resources Limited (ASX: KGL) (KGL or the Company).

Confidence levels in the resource estimates have been strengthened by an increase in the Indicated Copper category from 50% to 65% of the total copper Mineral Resources. The total copper resource estimates now stand at

- 26.6 million tonnes at 1.47% copper and 24.7 g/t silver,
- containing 390,600 tonnes copper and 21.1 million ounces silver,
- including Indicated Resources of 255,000 tonnes contained copper and 12.7 million ounces contained silver.

The upgrade is the successful result of a recently completed infill drilling program at the Reward and Rockface deposits. The drilling achieved the objective of increasing the confidence levels in the underground Mineral Resources by converting resources from the Inferred to Indicated category. Indicated Resources of copper at Reward and Rockface were increased by 240% and 34% respectively.

The upgrading of mineral resources parallels other advances towards project development:

- Environmental Impact Statement – the Supplementary EIS was lodged last month as part of the final stages of the approval process.
- Water sourcing – sufficient bore water for the project has now been sourced.
- Project planning and design – initial studies into conceptual mine planning, processing and process plant design are completed, and negotiations with mining contractors, processing consultants, power suppliers and village and transport logistics providers are continuing.

Welcoming the resources update, KGL Executive Chairman Denis Wood commented:

> "With the Indicated Copper Resource category increasing from half to two thirds of the total copper resources at Jervois, we are very pleased to be delivering on our commitment to focus on improving the quality of mineral resources through infill drilling.
>
> "Today's announcement on upgraded Mineral Resources is an important step towards the essential establishment of a Mining Reserve which, in conjunction with the EIS, our water sourcing success and mining and other planning work, is advancing us towards project development."

Resources update in detail

The new resource estimates for the underground deposits at Reward and Rockface are listed in Table 1.

Reward		1% Cu Cut Off		Below 200m RL				
Category	**Mt**	**Cu %**	**Ag g/t**	**Au g/t**	**Cu Kt**	**Ag Mozs**	**Au ozs**	**Density t/m³**
Indicated	3.09	1.94	31. 9	0.47	59.9	3.2	47,150	3.23
Inferred*	2.93	1.58	26.6	0.26	46.3	2.5	24,750	3.19
Total	**6.01**	**1.77**	**29.3**	**0.37**	**106.2**	**5.7**	**71,900**	**3.21**
Rockface		1% Cu Cut Off		Below 200m RL				
Category	**Mt**	**Cu %**	**Ag g/t**	**Au g/t**	**Cu Kt**	**Ag Mozs**	**Au ozs**	**Density t/m³**
Indicated	3.07	2.44	13.5	0.18	74.8	1.34	17,600	3.57
Inferred	1.42	1.59	11.3	0.14	22.6	0.52	6,400	3.28
Total	**4.48**	**2.17**	**12.8**	**0.17**	**97.3**	**1.85**	**24,000**	**3.47**

*(*Inferred Resources for Reward include Reward East. Minor rounding errors)*

Table 1 Mineral Resources for the Reward & Rockface Underground Deposits, July 2019

Table 2 shows the impact of the infill drilling on the Mineral Resources for the Jervois Project. The new estimates show a 32% increase in contained copper for the Indicated Resources with increases of 240% and 34% for Reward and Rockface respectively.

Contained silver for the Indicated Resources has increased by 31% with increases of 37% and 236% for Rockface and Reward respectively.

More than 65% of the Jervois copper resource of 390,600 tonnes is now in the Indicated Resource category. This is mainly due to the major resource upgrades for the Reward and Rockface deposits.

While there has been a small increase in total contained copper at Jervois, the infill drilling has prompted a reinterpretation of the extent of the lead mineralisation at Reward with the result that the size of the deposit has been significantly reduced. The current lead Indicated Resource at Reward is a minor component of the total Mineral Resources at Jervois.

- *Regrouping and renaming of deposits: The Marshall lode is now included in the Reward Deposit in Table 2, following drilling and improved modelling for mine planning purposes. The Green Parrot deposit has been renamed Reward South now that it is considered as a southern extension of Reward with potential for expansion.*

Deposit	Category	Mt	Cu %	Ag g/t	Pb %	Zn %	Cu Kt	Ag Mozs	Pb Kt	Zn Kt	% Cu cut off
Reward OP	Indicated	5.1	1.22	27.9			61.7	4.5			0.5
Reward UG	Indicated	3.1	1.94	31.9			59.8	3.2			1
Bellbird OP	Indicated	3.8	1.23	7.6			46.7	0.9			0.5
Bellbird UG	Indicated	0.2	1.85	11.9			3.9	0.1			1
Rock Face UG	Indicated	3.1	2.44	13.5			74.9	1.3			1
Reward OP	Inferred	0.2	0.67	14.6			1.2	0.1			0.5
Reward UG	Inferred	2.1	1.70	32.3			35.6	2.2			1
Reward E OP	Inferred	0.7	0.76	7.1			5.4	0.2			0.5
Reward E UG	Inferred	0.8	1.29	12.0			10.8	0.3			1
Bellbird OP	Inferred	1.1	0.91	6.1			10.3	0.2			0.5
Bellbird UG	Inferred	1.7	2.02	12.7			33.6	0.7			1
Rock Face UG	Inferred	1.4	1.59	11.3			22.5	0.5			1
	Total	**23.3**	**1.57**	**19.0**			**366.3**	**14.2**			
Pb Resource											
Reward	Indicated	0.5	0.56	91.9	3.60	1.49	3.0	1.6	18.9	7.8	2% Pb
Reward S	Indicated	0.5	0.99	64.0	0.92	0.63	5.1	1.1	4.7	3.2	0.3
Reward	Inferred	0.3	0.51	56.8	3.58	1.73	1.4	0.5	9.8	4.7	2% Pb
Reward S	Inferred	1.4	0.81	78.0	1.78	0.93	11.1	3.4	24.4	12.8	0.3
Bellbird N	Inferred	0.7	0.57	17.9	1.71	2.52	3.8	0.4	11.3	16.7	0.2
	Total	**3.3**	**0.73**	**64.4**	**2.07**	**1.35**	**24.3**	**6.9**	**69.2**	**45.2**	
TOTAL	Indicated	16.3	1.57	24.2			255.0	12.7			
	Inferred	10.3	1.31	25.5			135.6	8.5			
		26.6	**1.47**	**24.7**			**390.6**	**21.1**			

(minor rounding errors)

Table 2 July 2019 Mineral Resource for the Jervois Copper Project

Appendix 1 contains the Executive Summary from the Resource Estimate Report prepared by H&S Consultants. The full report can be found on the Company's website www.kglresources.com.au .

Figure 1 illustrates the progress of the copper resource definition under KGL's ownership of the Jervois project. Figure 2 illustrates the progress of the silver resource definition by KGL at Jervois.

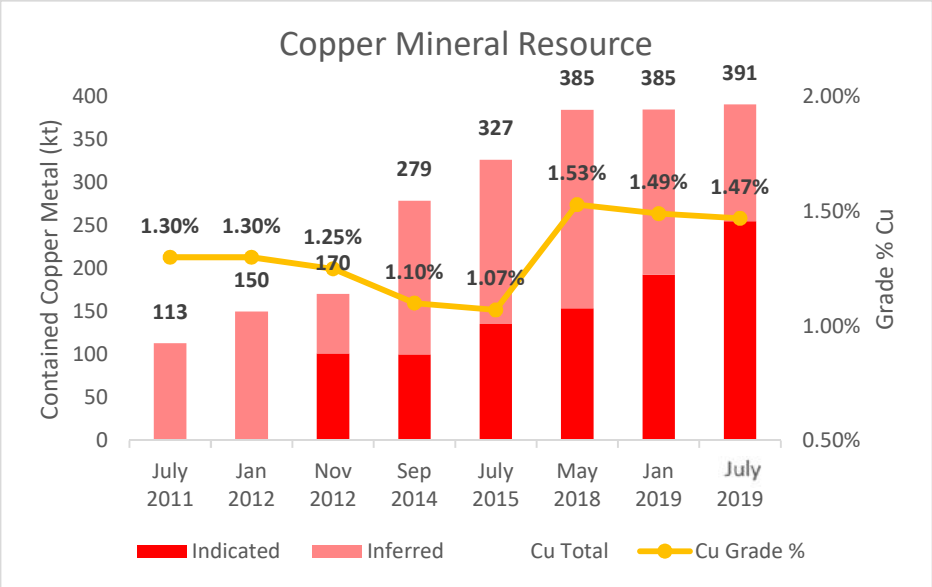


Figure 1 Copper Mineral Resource History at Jervois

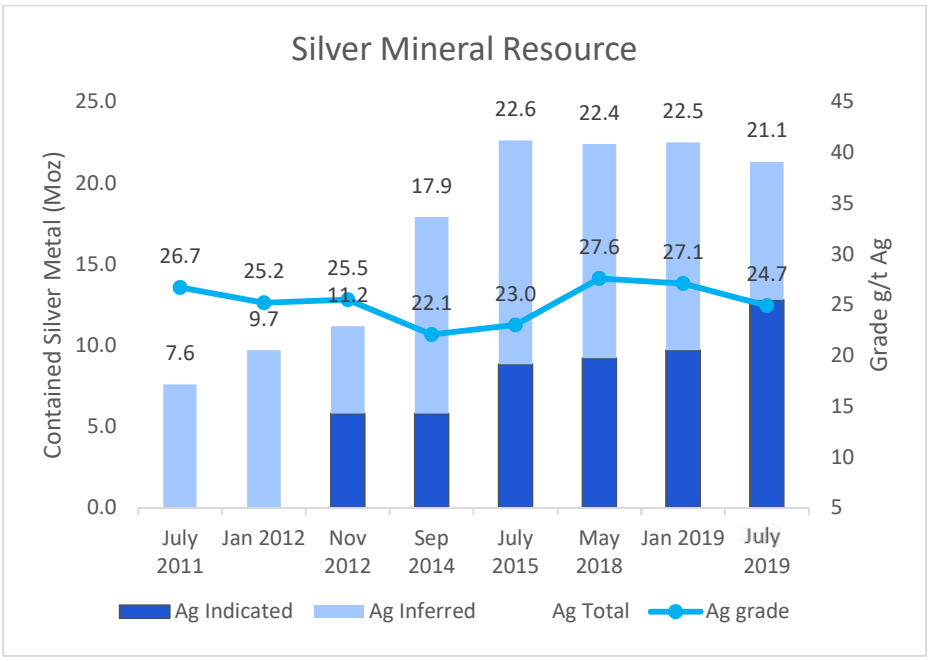


Figure 2 Silver Mineral Resource History at Jervois

The conceptual mine plan for Jervois has been revised by Australian Mine Design and Development Pty Ltd using the updated resource block models. This involved the following steps:

- Updating the Reward deposit open pit optimisation using Whittle™ software and revising the practical pit design for Reward using Surpac™ software, as shown in Figure 3 (longitudinal view looking west with the underground resource model at a1% Cu cut off)

- Updating the underground evaluations and stope designs for Reward and Rockface using MSO software, as shown in Figure 4 (longitudinal view looking north with the underground resource model at a1% Cu cut off, and
- Updating the life of mine schedule for all deposits.

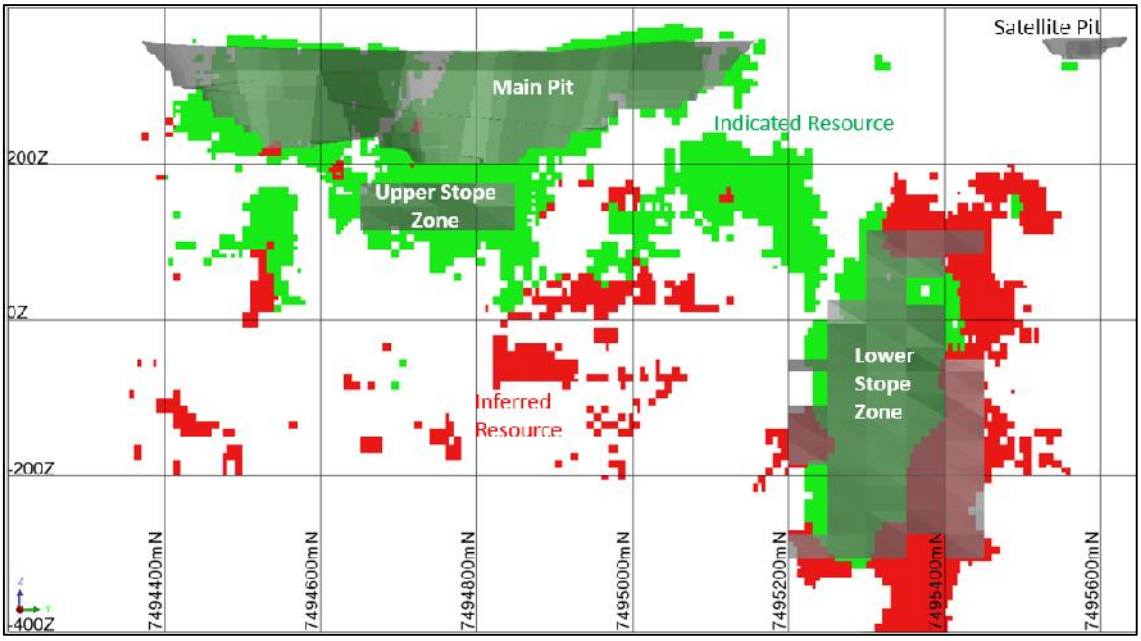


Figure 3 Reward Open Pit and Underground Mine Plans.

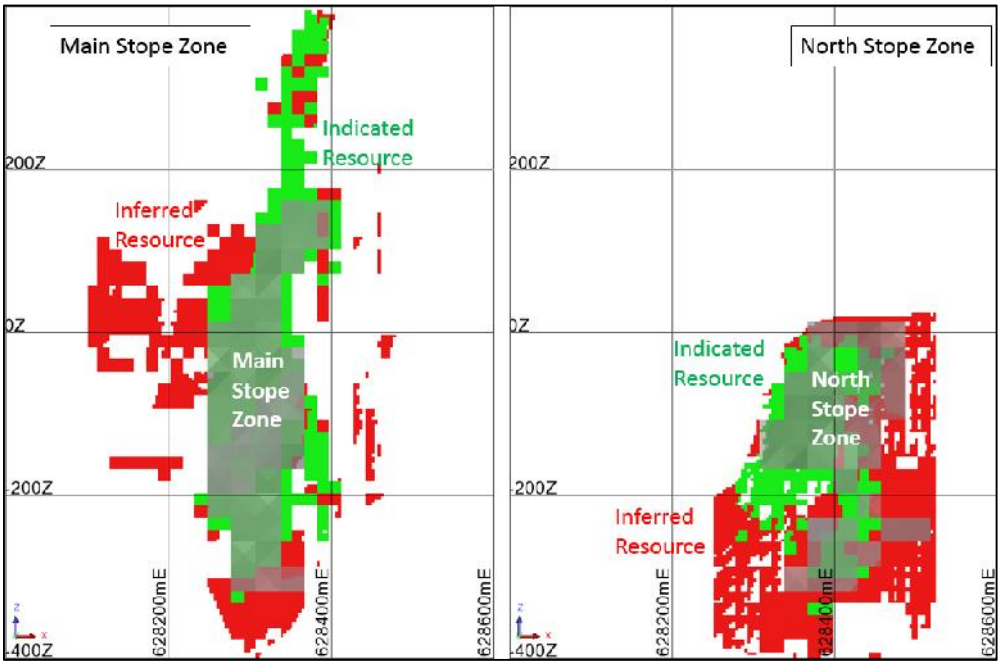


Figure 4 Rockface Main Stope Zone and Northern Stope Zone

Figure 5 shows the breakdown of the Life of Mine Schedule by deposit for the Jervois Copper Project.

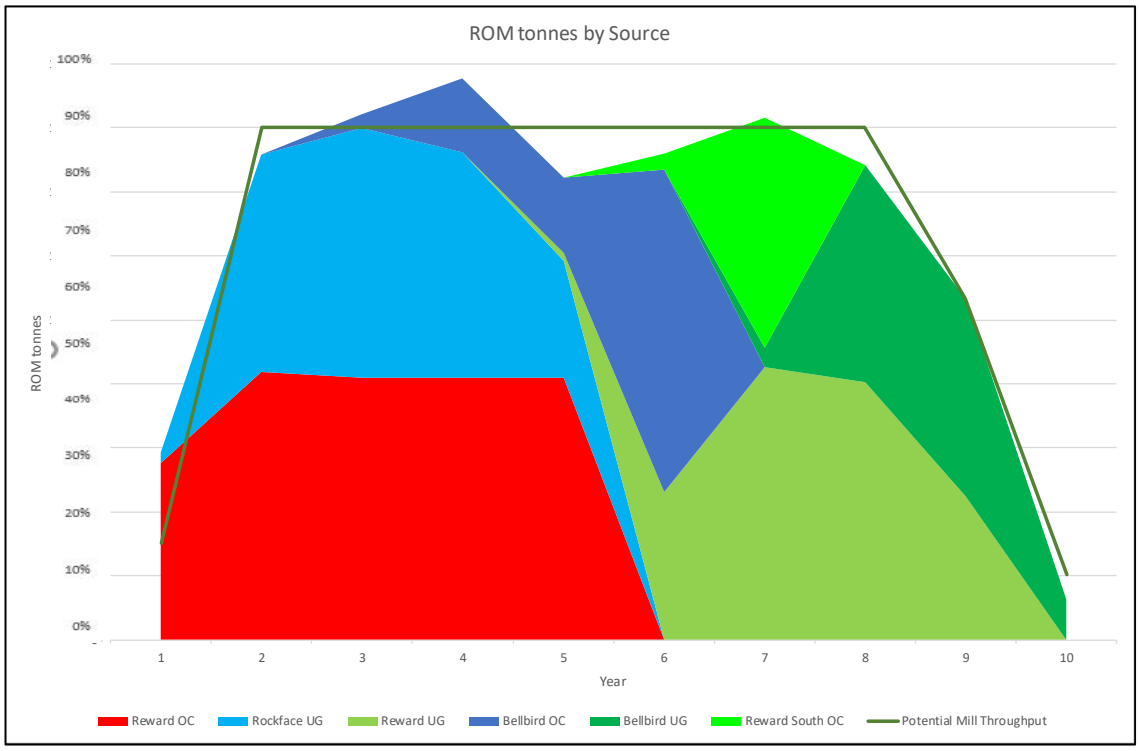


Figure 5 Life of Mine Schedule breakdown by deposit

The mine planning work continues to progress towards the reporting of Ore Reserves. Accordingly, as shown in Figure 6, the Life of Mine schedule aims to maximise the proportion of Indicated Resources and minimise the Inferred Resources in the initial years of production, by commencing with Reward Open Pit and Rockface.

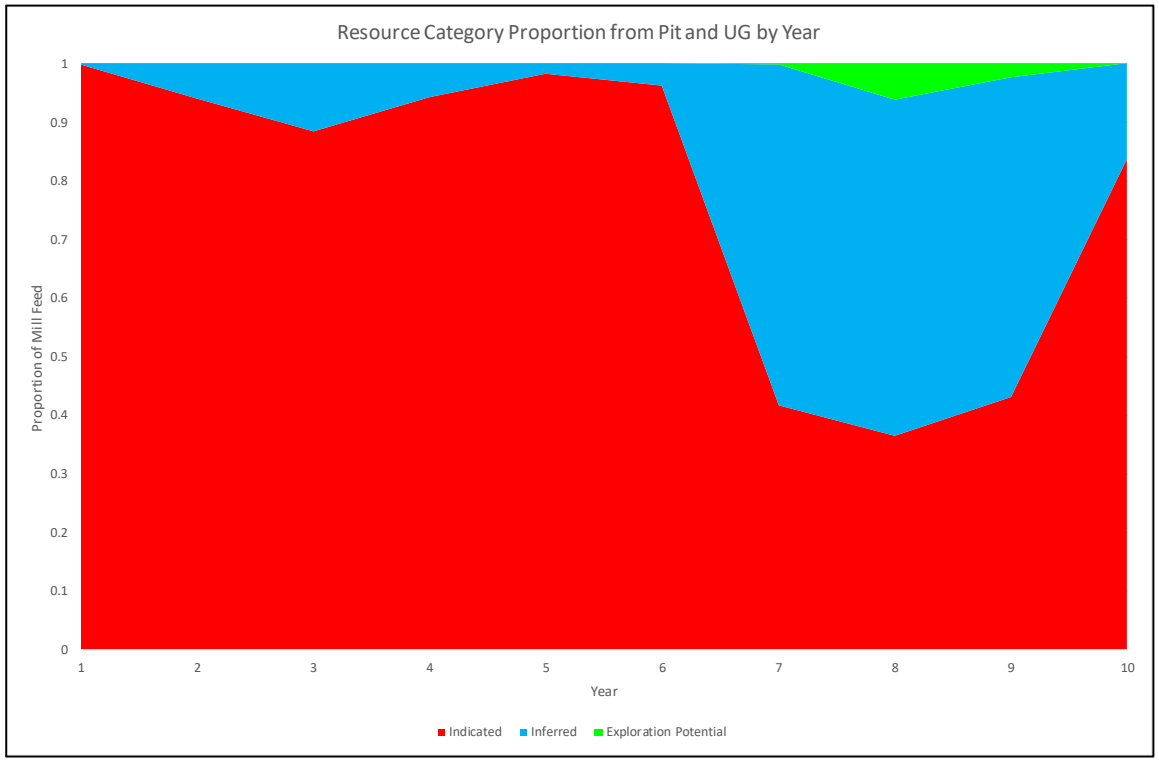


Figure 6 Breakdown of Life of Mine schedule by Resource Class[1]

[1] The final years of the Life of Mine Schedule presented here also include a small conceptual tonnage for Bellbird Underground (green section in above diagram)

Competent Persons Statements

The Jervois Exploration Results in this report are based on information compiled by Adriaan van Herk, a Member of the Australian Institute of Geoscientists, Chief Geologist and a full-time employee of KGL Resources Limited. Mr. van Herk has sufficient experience which is relevant to the style of the mineralisation and the type of deposit under consideration and to the activity to which he is undertaking, 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. van Herk has consented to the inclusion of this information in the form and context in which it appears in this report.

The data in this report that relates to the 2019 Mineral Resource estimates for the Jervois Copper Project is based on information evaluated by Mr Simon Tear who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM) and who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code"). Mr Tear is a Director of H&S Consultants Pty Ltd and he consents to the inclusion in the report of the Mineral Resource in the form and context in which they appear.

The following drill holes were originally reported on the date indicated and using the JORC code specified in the table. Results reported under JORC 2004 have not been updated to comply with JORC 2012 on the basis that the information has not materially changed since it was last reported.

Hole	Date originally Reported	JORC Reported Under
KJD336	29/07/2019	2012
KJD337	29/07/2019	2012
KJD338	29/07/2019	2012
KJD339	29/07/2019	2012
KJD343	29/07/2019	2012
KJD348	29/07/2019	2012

Appendix 1 Mineral Resource Estimation

H&S Consultants Pty Ltd ("H&SC") was commissioned by KGL Resources Ltd ("KGL") to complete updated Mineral Resources for its Jervois Copper Project in the Northern Territory, 380kms north east of Alice Springs. The target commodity is copper with subordinate silver, lead, zinc and gold. The estimates have been reported in accordance with the 2012 JORC Code and Guidelines. H&SC completed a previous set of resource estimates for Jervois in 2015.

A total of four deposits comprise the project, namely Reward (including Marshall, Reward East and Sykes), Reward South (formerly Green Parrot), Bellbird (including Bellbird North) and Rockface. The current round of work involved completing updated resource estimates for the Reward and Rockface Underground deposits based on the recent infill drilling (2016-2019). The global estimates in this report include these new estimates plus the Reward Open Pit resource estimates (not reported separately in 2015), the 2015 reported estimates for Bellbird (includes a very slight resource upgrade) and the 2015 reported estimates for Reward South.

Geology

The deposit geology for the project consists of a series of complex, narrow, structurally controlled, sub-vertical sulphide/magnetite-rich lodes hosted by Proterozoic-aged, amphibolite grade metamorphosed sediments of the Arunta Inlier. Mineralisation is characterised by masses, veinlets and disseminations of chalcopyrite/pyrite in the fresh rock zone with malachite/azurite/chalcocite in the vertically-limited oxide zone. In addition, small scale pods of high grade, semi-massive to massive galena (and sphalerite) mineralisation occur in fresh rock with oxide equivalents including cerussite and anglesite. Generally, these pods are associated with more carbonate-rich host rocks occurring at Reward South, Reward and Bellbird North.

Drilling Data

KGL has supplied the drillhole database for the deposit, which H&SC has accepted in good faith as an accurate, reliable and complete representation of the available data. The responsibility for quality control resides solely with KGL. H&SC performed limited validation of the data and noted possible issues with the historical data (pre-2011) for Reward, Reward South and Bellbird, in particular the accuracy of collar locations, a lack of QAQC data, the lack of drillhole recoveries and consistency with geological logging. H&SC noted no data issues with the more recent Rockface and Reward drilling. H&SC has concluded that the drillhole database for Jervois is satisfactory for resource estimation purposes.

A review of the QAQC procedures and outcomes for the more recent KGL drilling (2016-2019) has shown no significant issues with the sampling and analytical work.

The updated resource estimates include new data collected as part of the 2016-2019 diamond and RC drilling campaigns which involved a total of 143 holes for 65,927m. The new drilling is predominantly diamond core and has focussed on delineating new discoveries at Rockface Underground and Reward Deeps plus upgrading pre-existing Inferred Resources to Indicated at Reward Underground. Drill spacing at Rockface and Reward Underground is nominally on 50m centres, whereas for the Reward Open Pit, the drill spacing varies between 15-50m down dip and along strike.

Virtually all the recent drillhole intercepts are at relatively steep angles to the mineralisation and nearly all holes intersect the hangingwall and footwall contacts for the mineralisation. The vast majority of the drilling for the Rockface and Reward Underground mineral zones is diamond core with core recoveries for the recent 2016-2019 drilling being very good, globally averaging over 99%.

Geological Interpretation

The cross-sectional interpretation for Reward and Rockface has been completed on 25m spacings. At Rockface mineralisation has been interpreted as two steeply-dipping, parallel, magnetite-sulphide zones hosting variable amounts of semi-massive to disseminated chalcopyrite (+/-pyrite) mineralisation, named the Main Lode and the North Lode. It is uncertain at this stage if the North Lode is a separate entity with respect to the Main Lode, is a fault offset of the Main Lode or is the product of an isoclinal fold of the Main Lode unit with a sub-vertical fold hinge. There is a tendency for higher grade copper zones on the hangingwall and footwall margins of the Main Lode (and to a lesser extent with the North Lode) with a barren to lower grade magnetite zone in between. It is apparent that copper mineralisation forms both sharp and gradational contacts with the host rocks and magnetite alteration.

The Main Lode mineralisation for Rockface has average dimensions of 450m along strike (E-W), 700m down dip (to south) and 14m in true thickness. The sub-parallel North Lode has average dimensions of 280m along strike, 425m down dip and 14m in true thickness. The Main Lode is exposed at surface albeit low grade, but the North Lode starts at a depth of 350m below surface.

Modest changes have been made to the Reward mineral wireframes confirming the robustness of the 2015 interpretation. The main changes are a more sigmoidal shape to the Reward mineral zone in the central part of the underground deposit and a deepening of the Reward lode (Reward Deeps) in its northern half. There has also been a minor reconfiguration of Reward East lodes and the introduction of a new small-scale parallel lode called Reward West at Reward Deeps.

The geological interpretation of the 2015 Reward lead resource has been revisited in conjunction with outcomes from the recent infill drilling. The dip and strike extent of the characteristic mineralisation appears to be more limited than previously interpreted, often appearing to be related to just one hole.

Estimation Methodology

12,960 1m composites were used for the new resource estimates for Reward (10,539) and Rockface (2,431). Elements modelled included copper, silver, gold, lead, zinc, sulphur, iron, bismuth and cobalt, and relative soluble copper for Reward. The Reward deposit dataset comprises highly variable numbers of data points for each element such that regression equations have been used to generate missing data values. The lack of data is a function of the lack of element assays associated with the historic drilling. Composite extraction for modelling used mineral wireframes designed on a combination of iron assays (magnetite alteration), sulphur assays (sulphide mineralisation), logged lithology, lithogeochemical interpretation (barium, phosphorous and calcium assays in particular) and a nominal 0.1-0.2% copper cut-off (and anomalous silver), all conforming to geological sense. Extrapolation of the wireframes beyond the limiting drillholes was generally <25m in strike and <100m in dip.

The composites exhibit a reasonably strong correlation between copper and silver and a weak to moderate gold to silver correlation. Variography showed poor/limited continuity for all three elements which is due to a combination of the lack of drilling data, the narrowness of the lodes in places and subtle undulations in both dip and strike of the mineralisation.

Grade interpolation was completed by using the Ordinary Kriging module in either the Micromine or GS3M software with the modelled data loaded into Surpac block models. For Reward, dynamic interpolation (Micromine) was used to account for the subtle changes in dip and strike of the lodes. For Rockface search domains, reflecting subtle variations in the dip and strike angles, were created for the Main Lode (2 domains), whilst 3 search domains were created for the North Lode.

Block size for Rockface was 15m by 2m by 15m (X, Y & Z) with 3.75m by 0.5m by 3.75m sub-blocking. For Reward two models were generated, one for the open pit mining scenario and the other for underground extraction. Block sizes for the former were 5m by 10m by 5m (X, Y & Z) with 2.5m by 5m by 2.5m sub-blocking and for the latter 2.5m by 10m by 10m (X, Y & Z) with 1.25m by 5m by 5m sub-blocking.

For Rockface a 3-pass search strategy was employed for both lodes with an initial Indicated Resource search (Pass 1) of 60m by 5m by 60m with a minimum number of 12 data and 4 octants. This was expanded

in two stages to an Inferred Resource maximum search (Pass 3) of 105m by 8.75m by 105m with a minimum of 6 data and 2 octants. A second 3 pass search strategy (Passes 4 to 6) was used to further generate block grades within the interpreted mineral wireframes with a search radius reaching a maximum of 150m by 12.5m by 150m with minimum data for the Pass 4 search being 6 decreasing to 3 for the Pass 6 search, with a minimum of 2 octants (Inferred Resource). The only hard boundaries were the mineral wireframes i.e. no internal high-grade boundaries.

For Reward Ordinary Kriging with dynamic interpolation was used to generate block grades. A 4-pass search strategy was employed for all lodes with a maximum Indicated Resource search distance (Passes 1&2) of 10m by 60m by 60m with a minimum number of 17 data, using a minimum number of 3 holes. This was increased to 20m by 120m by 120m with a minimum of 8 data and 1 drillhole (Pass 4 - Inferred).

Density Model

Density grades for Rockface were interpolated for the whole area using Ordinary Kriging on 6,231 sample points unconstrained by any mineral wireframes. The density grade interpolation used a similar search strategy as for the metal grade interpolation with the inclusion of the second 3 pass search strategy. The density modelling method ensured densities peripheral to the mineralisation were interpolated in anticipation of use in mine planning studies. At Reward the same grade interpolation strategy to the metal grade interpolation was used on 7,493 density sample points with additional data created from applying the 2015 default densities to the different logged lithotypes. Modelling of peripheral density data was also completed for use in mine planning studies.

Block Model Validation

Block model validation consisted of visual comparison of block grades with drillhole assay grades, a review of the summary statistics for the block grades and composite values including cumulative frequency plots, as well as analyses of swath plots, histograms, boxplots, and contact boxplots for each mineral zone (Reward only). Comparison with previous estimates was also completed.

Resource Reporting

KGL have informed H&SC that they intend to selectively mine the Reward deposits in an open pit scenario, followed by a switch to underground extraction. The resource estimates have been modelled and classified on these assumptions. Their intention is to mine Rockface from underground.

Reporting of the Reward Open Pit copper resource estimates used a 0.5% copper cut-off for blocks with centroids inside the relevant mineral wireframes above the 200mRL. The small scale Johanssen and Sykes deposits were excluded on KGL's advice. The Reward Underground estimates are reported in a similar manner using a 1% copper cut off below the 200m RL position. Excluded from both estimates is the copper mineralisation associated with the high-grade lead pods i.e. blocks at a lead cut-off grade >/=2%. Reporting of the Rockface Underground resource estimates used a 1% copper cut off for blocks with centroids inside the mineral wireframes below the 200mRL position.

The updated resource estimates for Rockface and Reward are classified as Indicated and Inferred. The classification of the resources is based primarily on the data point spacing (a function of the drillhole spacing), the geological model, historical data issues, QA/QC outcomes and drillhole recoveries (the last three items particular for Reward). Minor adjustments were made to remove 'spotted dog' effects for both deposits with a combination of additional interpolated grade models and defined shapes for Rockface and pass category averaging forReward.

The new estimates for Reward and Rockface now include gold with the same classification as the copper and silver. For Reward this is due to the resolution of the 2015 QAQC gold standard issue, the recent drilling indicating no significant change in either the average gold grade or the block grade distribution and the relative minor impact gold has on the value of the deposit. For Rockface all the drilling is recent with a complete set of gold assays.

The lead mineralisation at Reward has been reported at a 2% lead cut off with the block centroid inside the Reward mineral wireframe. This has resulted in a substantial decrease in the overall size of the resource estimates. The decrease is due to the revision in the geological understanding of the lead zones, a change in the lead grade interpolation method and the use of a 2% lead cut off to report the estimates.

Exploration Potential

Exploration potential for Reward and Rockface within the current interpreted mineral wireframes appears to be limited.

Exploration potential exists immediately beyond the current mineral wireframes, particularly for the eastern end and at depth for the North Lode at Rockface and around the Reward Deeps zone, both along strike and down dip.

Further afield exploration potential exists with the new discovery at Amigo – approximately 300m south east of Rockface, and significant mineral intercepts at Reward North – approximately 400m along strike to the north of Reward East.

Recommendations

Future work should comprise upgrading and possibly expanding the resource estimates e.g. for the North Lode at Rockface and for Reward Deeps. Detailed surface mapping and channel sampling work could help with the resource upgrade e.g. at Reward South.

Expansion of the resource estimates would involve drilling in selected areas peripheral to the current resource both within the mineral wireframes and down dip of favourable drillhole intersections and/or downhole EM signatures.

Other recommended items to undertake include a review of QA/QC procedures, particularly documentary presentation of outcomes, and a full database audit/upgrade.

It is also necessary to better establish the extent of the lead mineralisation at Reward.

Appendix 2 – Supplementary Figures

Figure 1 is a location map of the main copper prospects at Jervois.

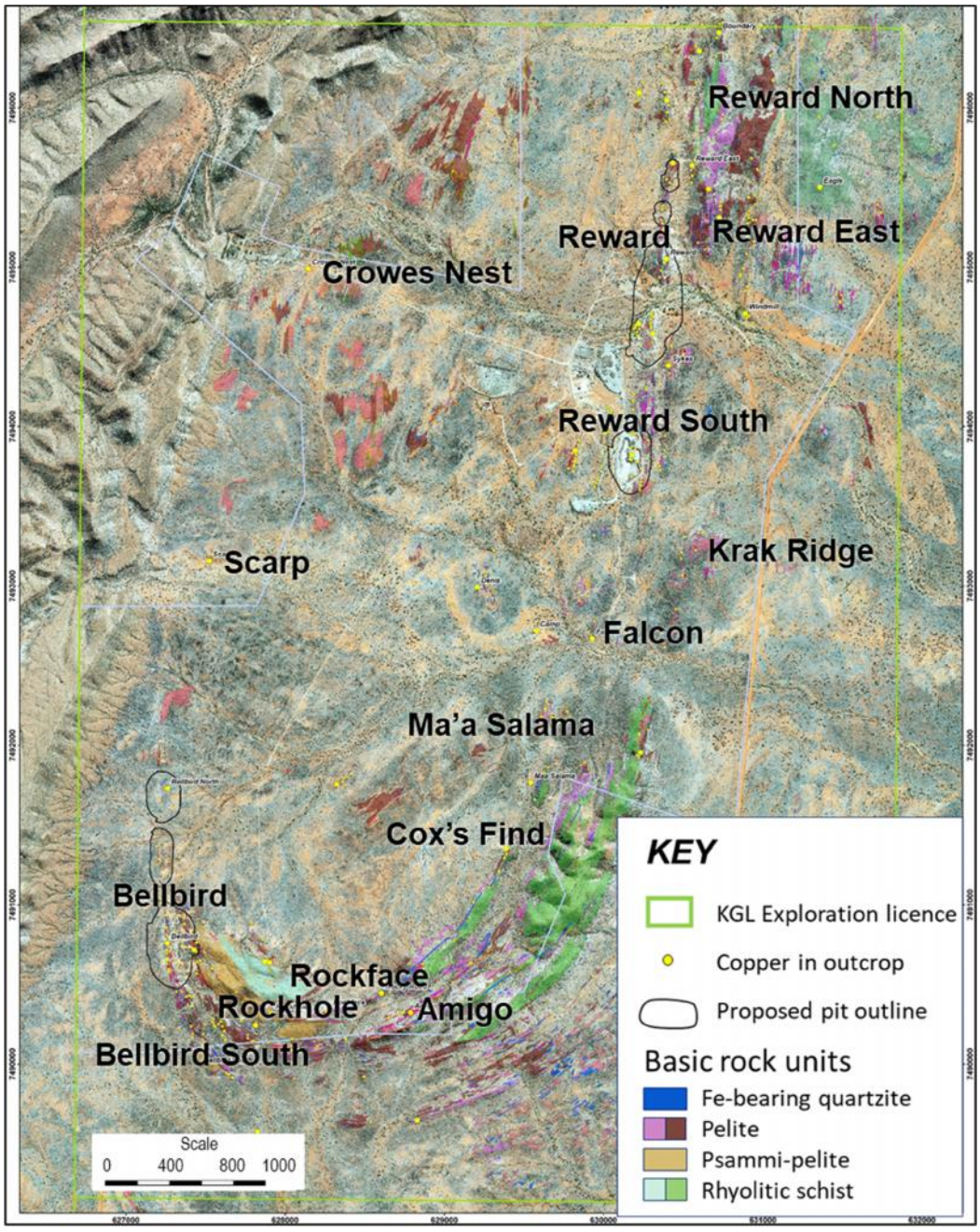


Figure 1 Location Map.

Figure 2 shows an oblique view of the drillholes and the geological interpretation of the mineral lodes for Reward.

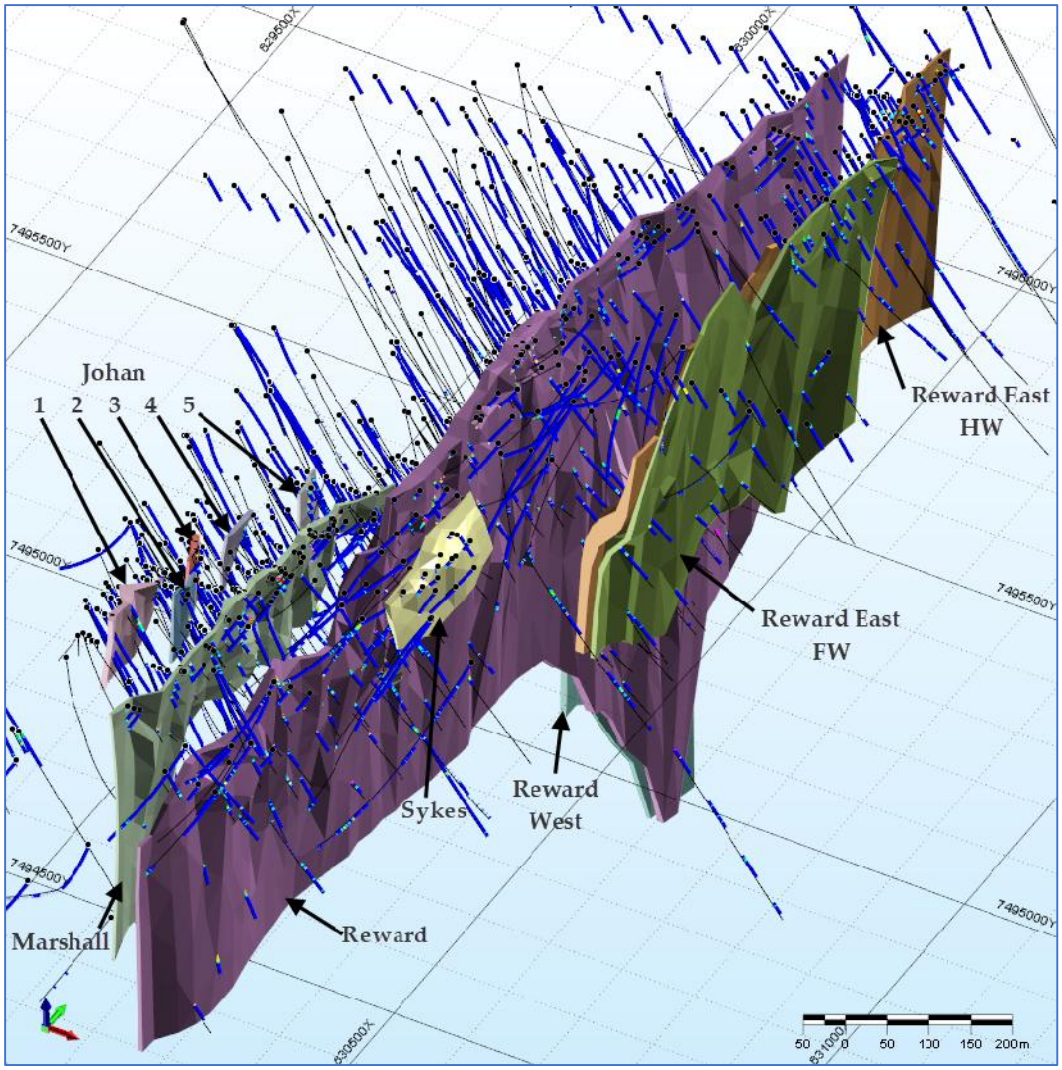


Figure 2 Geological Interpretation of the Reward Mineralisation

Figure 3 shows the copper block grade distribution for all search passes at a zero cut off grade from the Reward underground model (black line = the 200mRL).

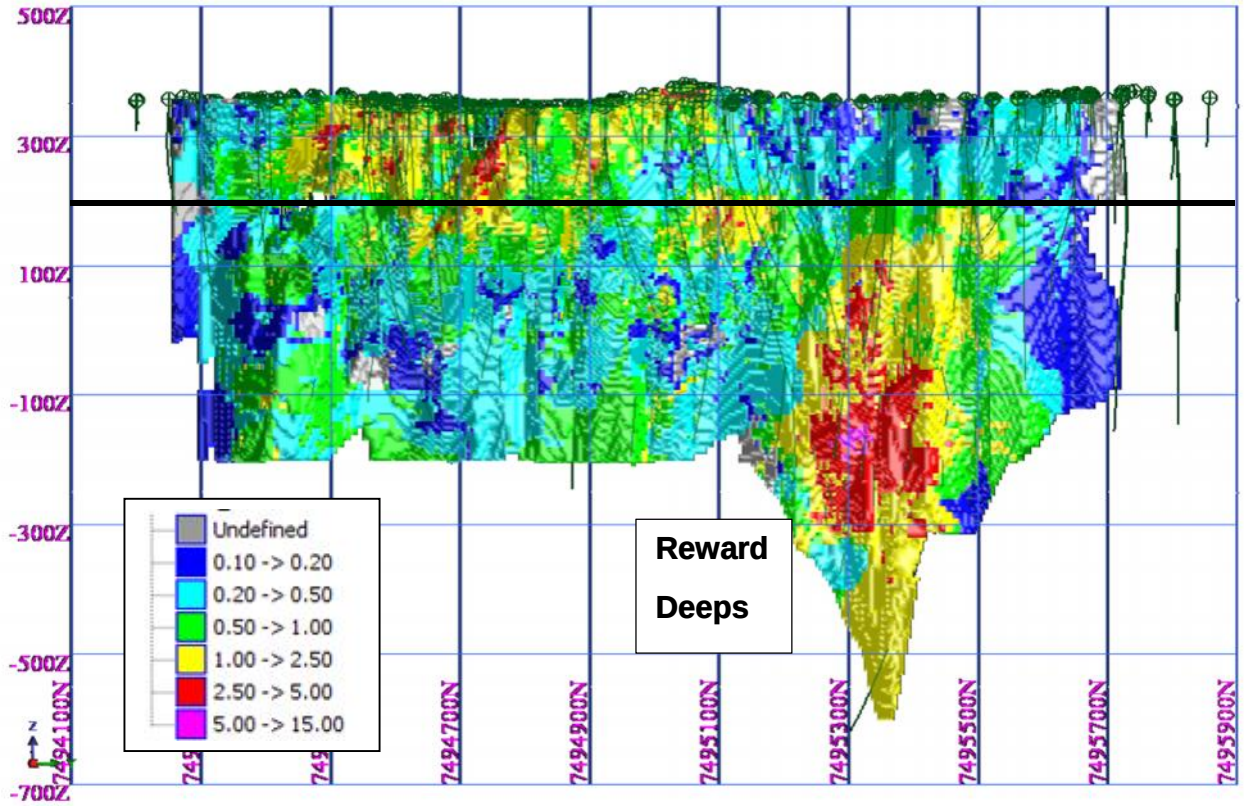


Figure 3 Reward Underground Model Copper Block Grade Distribution

Figure 4 shows the drillholes and the geological interpretation of the mineral lodes at Rockface.

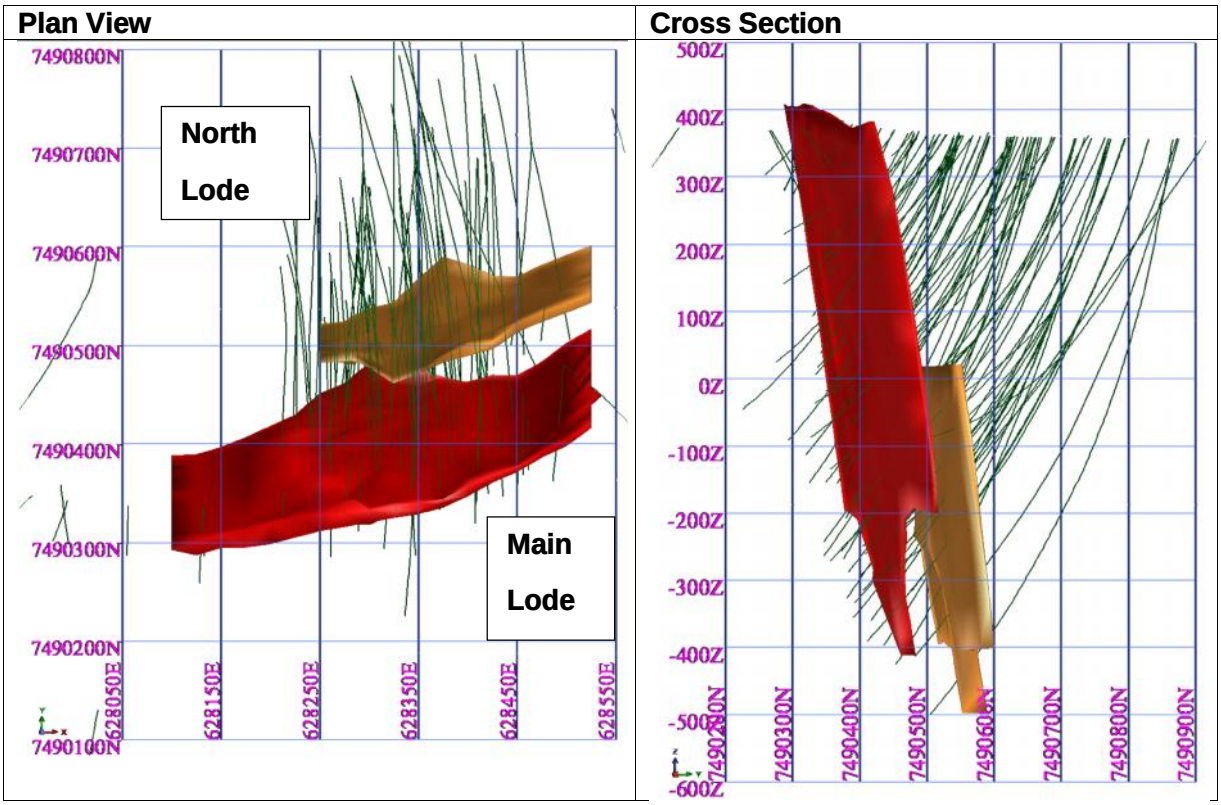


Figure 4 Geological Interpretation of the Rockface Mineralisation

Figure 5 shows the Main Lode copper block grade distribution for all search passes at a zero cut off grade from the Rockface underground model.

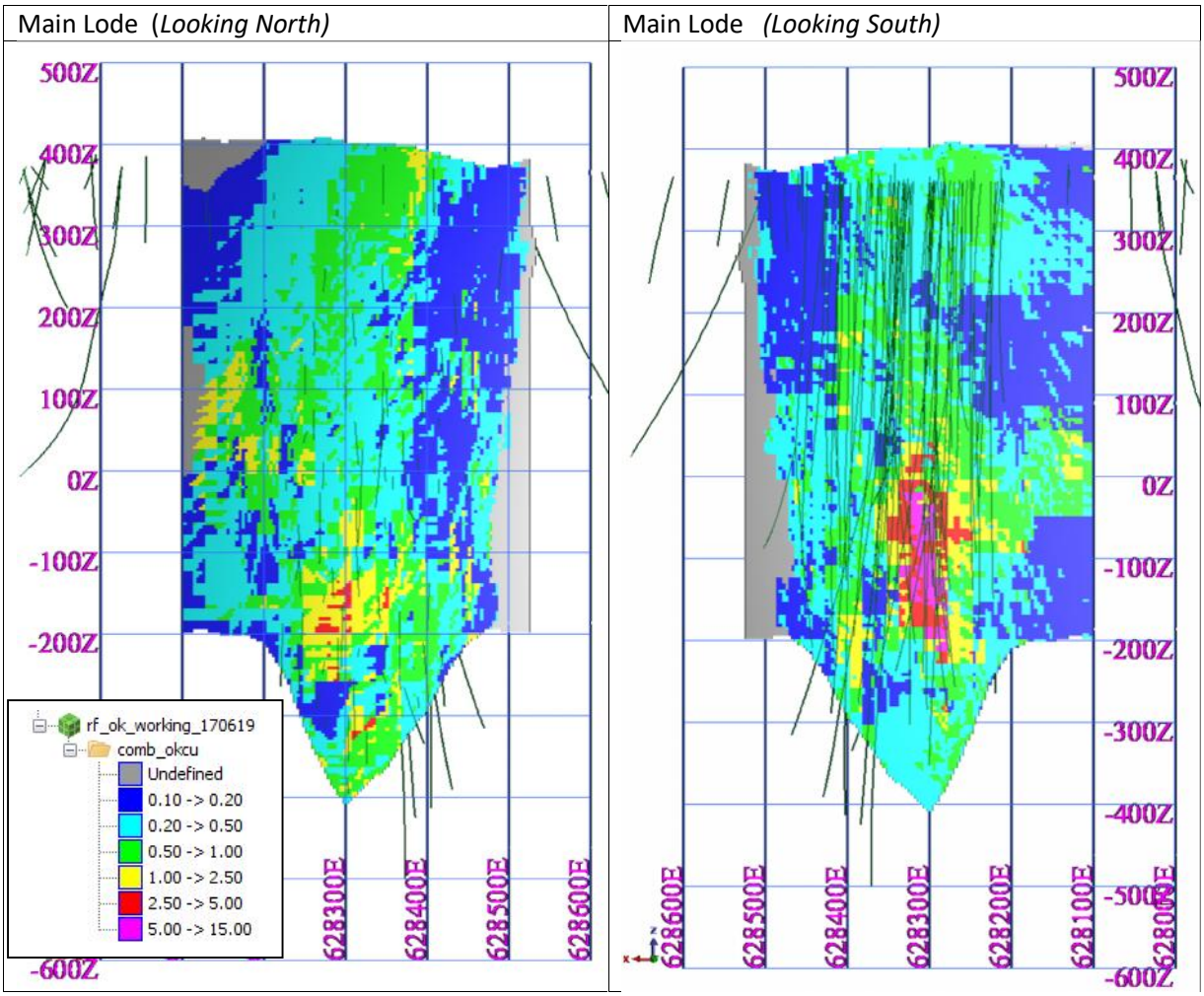


Figure 5 Rockface Underground Model Main Lode Copper Block Grade Distribution

Figure 6 shows the North Lode copper block grade distribution for all search passes at a zero cut off grade from the Rockface underground model.

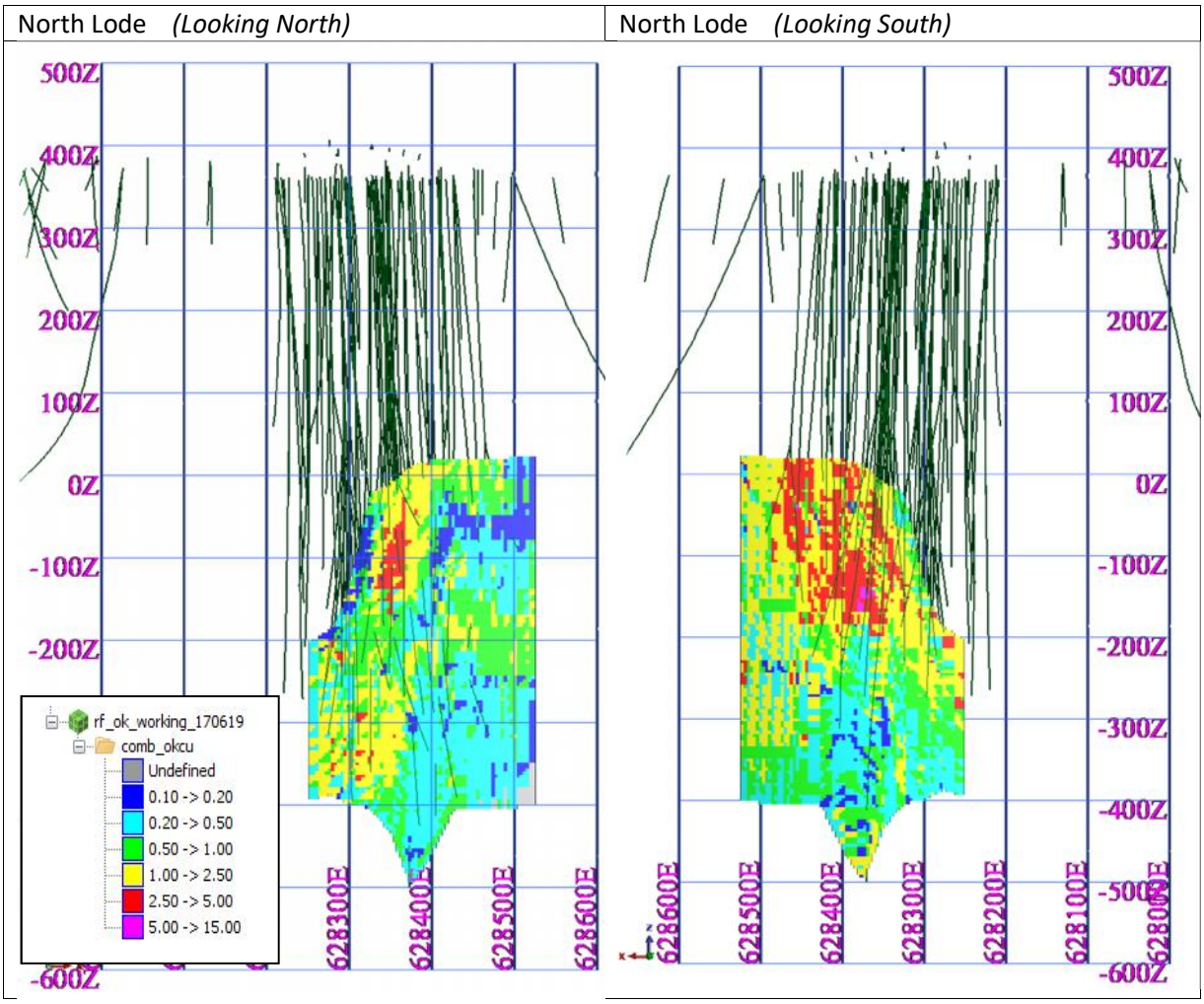


Figure 6 Rockface Underground Model North Lode Copper Block Grade Distribution

Exploration Potential

The areas of exploration potential for Reward occur around the Reward Deeps discovery shown as a red star in Figure 7. It should be noted that the low grade copper zone shown next to the blue star is defined by only one hole that contains high grade magnetite alteration. It may be a localised barren zone within a larger, higher copper grade mineral zone. Drilling 700m north of the northern limit of the Reward Lode interpretation contained moderately significant copper mineral intersections. The intercepts appear to be along strike from the Reward East mineral structure. These holes are shown as a green star in Figure 7 .

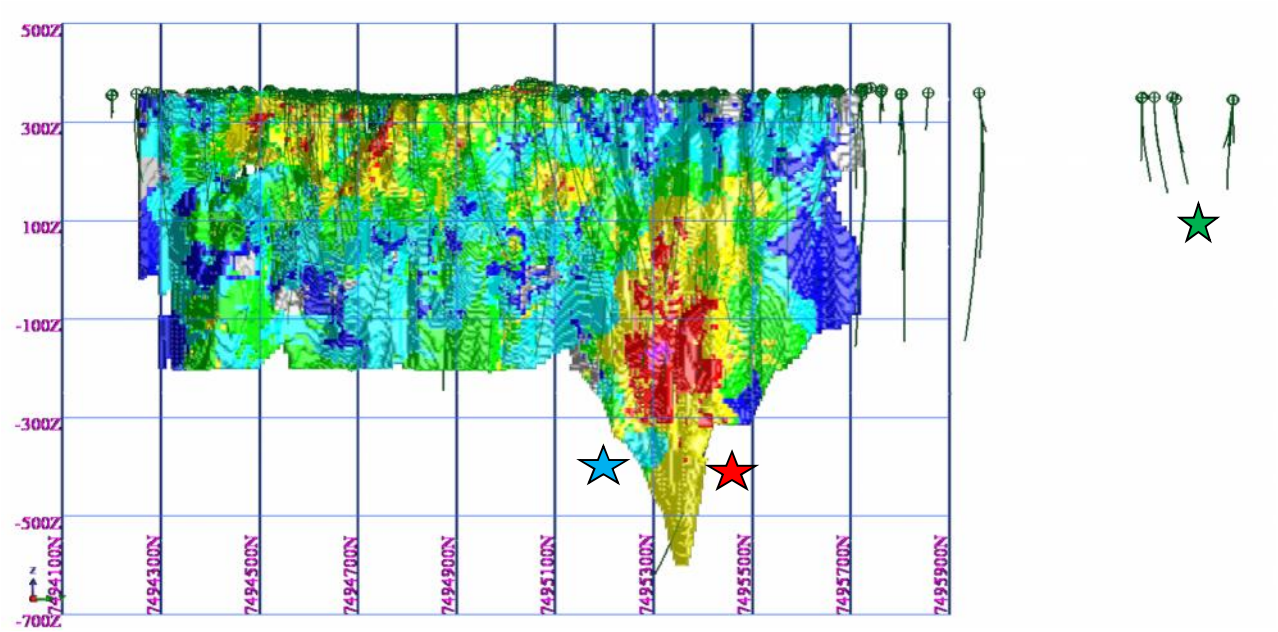


Figure 7 Reward Exploration Potential Target Areas

The areas of exploration potential for Rockface occur as peripheral magnetic targets to the current main Rockface mineralisation (Figure 8). Most notable is the Amigo magnetic anomaly shown in Figure 8 which has been drilled with encouraging results (KGL June 2019 quarterly report issued on 29 July 2019 & Figure 9) similar to the initial drilling at Rockface.

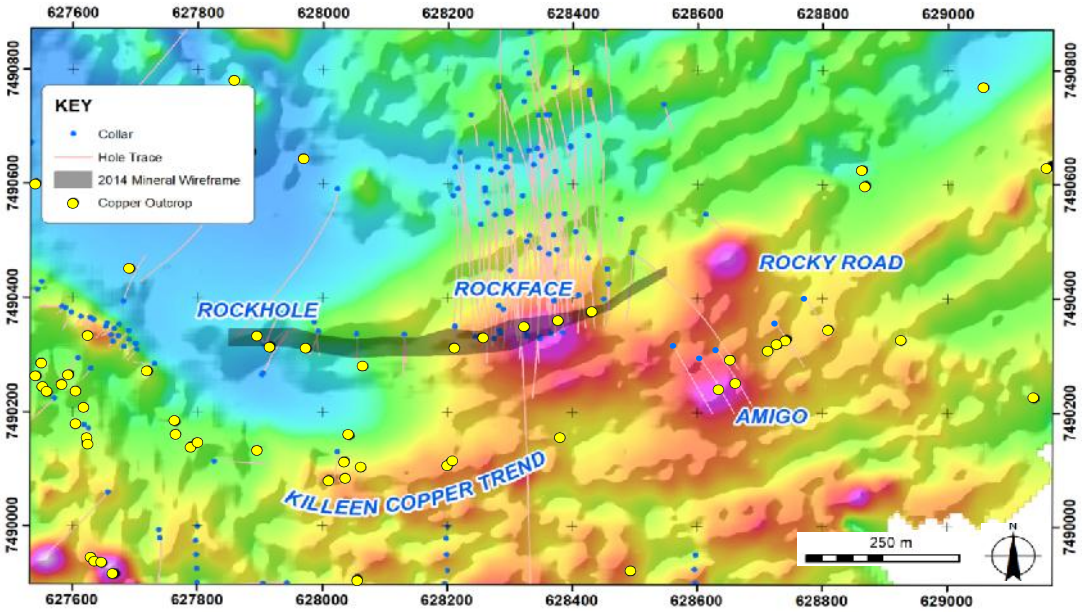


Figure 8 Rockface Exploration Potential Target Areas

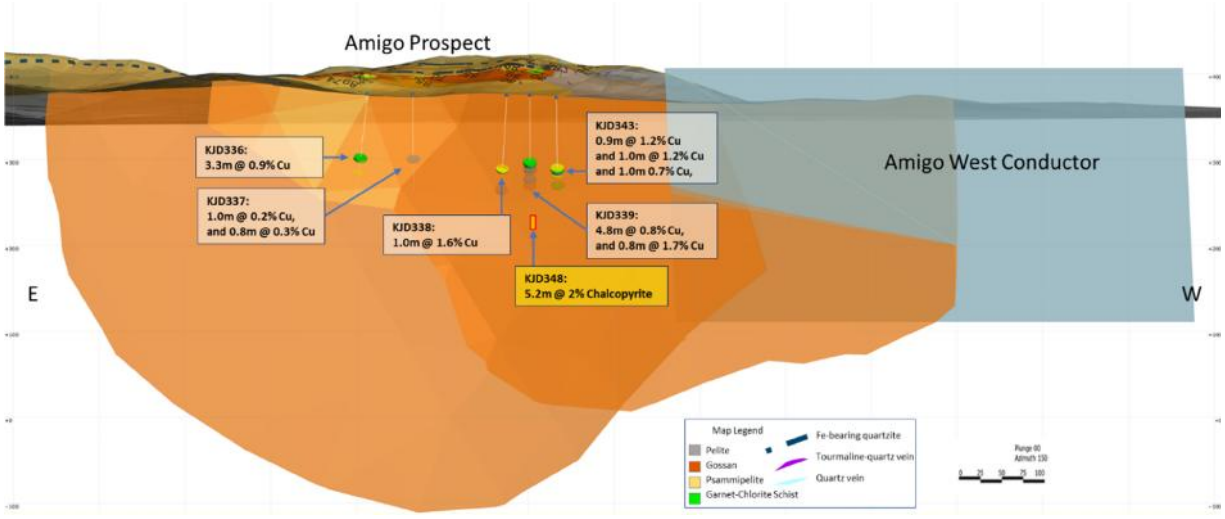


Figure 9 Amigo Long Section with Drilling Results

1 JORC Code, 2012 Edition – Table 1

1.1 Section 1 Sampling Techniques and Data

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

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td>Sampling techniques</td><td>

Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.
Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.
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 (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.

</td><td>

At Reward diamond drilling (DD) and reverse circulation (RC) drilling were used to obtain samples for geological logging and assaying. The DD core samples comprised a mixture of sawn HQ quarter core and sawn NQ half core. It is possible that some historical drilling (pre-2011) were of BQ size, where half core was used. Sampling is continuous through the mineralised zone. Sample lengths are generally 1m, but at times lengths were adjusted to take into account geological variations. RC sample intervals are predominantly 1m intervals with some 2 and 4m compositing (historical holes only). Drilling is on a nominal 25m spacing near surface expanding at depth to 50m and then to 100m on the periphery of the mineralisation.
At Rockface diamond drilling was used to obtain samples for geological logging and assaying. Sample lengths are generally 1m in length, but adjusted at times to take into account geological variations. The samples comprised sawn HQ quarter core. Drilling was on approximately 50m centres.
A summary of the 2016-2019 drilling is included below:
<table>
<tr><th>Deposit</th><th>Type</th><th>Holes</th><th>Metres</th></tr>
<tr><td>Bellbird</td><td>DD</td><td>1</td><td>70</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>Reward S</td><td>RC_DD</td><td>2</td><td>213</td></tr>
<tr><td></td><td>RC</td><td>3</td><td>327</td></tr>
<tr><td></td><td>Total</td><td>5</td><td>540</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>Reward</td><td>DD</td><td>14</td><td>5,944</td></tr>
<tr><td></td><td>RC_DD</td><td>43</td><td>18,789</td></tr>
<tr><td></td><td>RC</td><td>2</td><td>488</td></tr>
<tr><td></td><td>Total</td><td>59</td><td>25,221</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>Rockface</td><td>DD</td><td>26</td><td>10,210</td></tr>
<tr><td></td><td>RC_DD</td><td>50</td><td>28,848</td></tr>
<tr><td></td><td>RC</td><td>8</td><td>1,648</td></tr>
<tr><td></td><td>Total</td><td>84</td><td>40,706</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>Overall</td><td>DD</td><td>41</td><td>16,225</td></tr>
<tr><td></td><td>RC_DD</td><td>95</td><td>47,849</td></tr>
<tr><td></td><td>RC</td><td>13</td><td>2,463</td></tr>
<tr><td></td><td>Total</td><td>149</td><td>66,537</td></tr>
</table>

Representivity of the samples was assured by strict control of the drilling and sampling procedures. Average core recovery has been close to 100% for diamond drilling. RC samples are routinely scanned by KGL Resources with a Niton XRF. Samples assaying greater than 0.1% Cu, Pb or Zn are submitted

</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
		for analysis at a commercial laboratory.) Mineralisation at both deposits is characterised by disseminations, veinlets and large masses of chalcopyrite, associated with magnetite-rich alteration within a psammite. The disseminated style of mineralisation tends to be of relatively lower grade and is strata-bound. The host rocks are meta-sandstones and meta-carbonates. Higher grade massive to semi-massive chalcopyrite occurs as matrix fill in breccias which are structurally emplaced in association with magnetite-rich horizons. The dominant structures associated with the mineralisation are isoclinal fold hinges, which are related to compressive ductile deformation during amphibolite-facies metamorphism) Documentation of the historical drilling (pre-2011) for Reward is of variable quality and where uncertainty regarding position, drill hole trace or sampling exists, the hole was excluded for the purpose of resource estimation.
Drilling techniques	) *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	) The KGL and previous Jinka-Minerals RC drilling was conducted using a reverse circulation rig with a 5.25 inch face-sampling bit. Diamond drilling was either in NQ2 or HQ3 drill diameters. Metallurgical diamond drilling (JMET holes) were PQ) There is no documentation for the historic drilling techniques.) Diamond drilling was generally cored from surface with some of the deeper holes at Rockface and Reward utilizing RC pre-collars. Wedging was also used for parts of Rockface and Reward to obtain additional intersections.) Since 2011 oriented core is standard.
Drill sample recovery	) *Method of recording and assessing core and chip sample recoveries and results assessed.*) *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 occurred due to preferential loss/gain of fine/coarse material.*	) The KGL RC samples were not weighed on a regular basis. A check programme of sample weighing was completed for 24 oxide RC holes covering 472m during 2014. Acceptable recoveries were recorded.) Overweight samples (>3kg) are homogenised for assaying by Intertek.) Since 2016, no RC holes were targeted for the resource areas of Reward or Rockface.) No sample bias was established between sample recovery and metal grade.) Core recoveries for Rockface and Reward Under Ground resources are >95%, with the mineral zones having virtually 100% recovery.) The core recovery for the KGL drilling of Reward Open Pit resources has been regarded as acceptable although there is no documentation for the historical drilling.) No evidence has been found for any relationship between sample recovery and copper grade and there are no biases in the sampling with respect to copper grade and recovery.
Logging	) *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*) *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*	) All KGL RC and diamond core samples are geologically logged. Logging in conjunction with multi-element assays is appropriate for Mineral Resource estimation.) Core samples are also orientated and logged for geotechnical information.) All logging has been converted to quantitative and qualitative codes in the KGL Access database.) All core is photographed.) All relevant intersections were logged.) Paper logs existed for the historical drilling. There is very little historical core available for inspection.

Criteria	JORC Code explanation	Commentary
	) *The total length and percentage of the relevant intersections logged.*	
Sub-sampling techniques and sample preparation	) *If core, whether cut or sawn and whether quarter, half or all core taken.*) *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*) *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*) *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*) *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.*) *Whether sample sizes are appropriate to the grain size of the material being sampled.*	) Very similar sub-sampling procedures have been used since 2011) KGL has a documented procedure for sampling and sub-sampling (File "KMNT EXP SOP018 - Diamond Core Drillhole Logging_Sampling_QAQC.doc").) The following describes the sub-sampling process: – RC drill holes are sampled at 1m intervals and split using a cone splitter attached to the cyclone to generate a split of ~3kg. Nearly all samples were dry. – RC sample splits (~3kg) are pulverized to 85% passing 75 microns. – RC field duplicate comprises a second split of the bulk 1m drill sample collected via a separate 1:7 riffle splitter at an insertion rate of 1 per every 20. – HQ diamond core was quartered with a diamond saw and generally sampled at 1m intervals with sample lengths adjusted to fit geological contacts. – Diamond core samples are crushed to 70% passing 2mm and then pulverized to 85% passing 75 microns. – Quarter core field duplicates, matching the length of the original sample, were taken at an insertion rate of 1 per every 20m of sample. – All sampling methods and sample sizes are deemed appropriate for resource estimation.) Very similar sub-sampling procedures have been used since 2011.) Sample preparation is now done by Intertek in Alice Springs where samples are crushed, split and an aliquot pulped and sent to Townsville. Intertek is a nationally certified laboratory. Lab duplicates comprise a second 200-250g pulp sample taken after the pulverisation stage with an insertion rate of 1 in 30.) The QAQC results for the 2011-2105 work indicate minor biases were associated with the RC field duplicates but will only have a very small impact on the classification of the resource estimates. The lab duplicates indicate no significant issues with the sample prep.) The QA/QC results for the 2016-2109 work indicate field duplicates mainly comprise diamond drilling and have shown no significant issues for all the elements of economic interest. Lab duplicate samples has indicated no issue with the sample homogenisation. The field duplicate results are considered typical for the sampling method and type of mineralisation) These are industry standard sampling procedures and appropriate for the purpose of exploration and resource estimation.) All sample sizes are considered appropriate to the material being sampled.) Details for the historical sampling (pre-2011) are not available. There appears to be a minor issue with selective sampling which required the insertion of low grade default values
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.*	) Before mid-2015 all samples were sent to the ALS sample prep plant in Alice Springs with the processed material sent to ALS laboratory in Adelaide for analysis. Base metal samples were assayed using a four-acid digest with an ICP-AES finish. Gold samples were digested and analysed by using Aqua Regia with

Criteria	JORC Code explanation	Commentary
	) *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.*) *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	an ICP MS finish. Samples over 1ppm Au were re-assayed by Fire Assay with an AAS finish.) In 2015 a decision was made to change the laboratory from ALS in Adelaide to the Intertek laboratory in Townsville. Base metal samples were assayed using a four-acid digest with an ICP-OES finish. Over range copper values were reanalysed using a larger aliquot and the sample is treated with an extended dilution process before being analysed by the same method. Gold samples were assayed by fire assay with a 50g charge with an AAS finish.) Acid digestion techniques employed since 2011 are considered to produce total element assays.) Coarse blanks, Certified Reference Materials (Standards) and second laboratory checks have been used to assess the analytical accuracy of the primary laboratory.) Insertion rates for the coarse blanks is 1 in 20, 1 in 10 for the standards, 1 in 20 for the field duplicates, and 1 second lab check per batch (mineral zone only).) Check samples are inserted in the samples sequence as follows: Every sample interval starts with a blank sample. After that: All check samples: 1 after every 5 original samples Standards: 1 after every 5 original samples except for when replaced by blanks or field duplicates. Base metal 1 after every 10 original samples – low or high grade depending on mineralisation estimate. Gold: 1 after every 10 original samples Field duplicates: 1 after every 20 original samples Blank gravel: 1 after every 20 original samples Second lab checks: 1 per batch) The standards comprise low and head grade standards. From the start of 2019 a high grade copper standard is being used.) From 2011-2015 the primary laboratory was ALS in Adelaide whilst from mid-2015 to 2019 Intertek of Townsville has been the primary laboratory. Second lab assays have been sent for the years 2016 and 2018 only.) For the 2011-2105 work the coarse blank standards show significant levels of copper 'noise' suggesting possible low level contamination at the sample prep stage, particularly for the 2012 drilling. The intensity of contamination was reduced from the 2012 reported levels for the 2014 and 2014-15 drilling. The issue was resolved at the time with the lab and the impact on the classification of the resource estimates is considered very small and is reducing with further work. The coarse blank standards from more recent drilling (2016-2019) show a considerable drop in the levels of copper 'noise' compared to the earlier 2011-2015 drilling suggesting more care is being exercised at the sample prep stage.) The 2011-2015 analysis of the standards indicate no significant issues. There is a tendency for under-reporting by 2-4% for the copper grades; (lead, zinc and silver often show similar patterns). However, all results are acceptable and considered reasonably precise and accurate. For the 2016-2019 analyses the standards indicate no significant issues with the results. There is a slight tendency for under-reporting for most elements (1-3%) but this may be a function of the standard itself rather than any fundamental problem with the laboratory. However, all recent results are acceptable and considered reasonably precise and accurate. The change in laboratory has been positive with slightly more accurate analyses.

Criteria	JORC Code explanation	Commentary
		• A couple of low grade gold standards have been used throughout the KGL work. An issue with one gold standard was detected in 2015, but was resolved satisfactorily with a substantial amount of re-assaying/check assaying. As a result there is no impact on the resource estimates except to slightly enhance the confidence in the accuracy of the gold assays. • The second lab assays for copper with the 2011-2015 drilling show no significant bias with the check assaying. The second lab checks for copper for the 2016-2019 drilling indicate a positive bias for the check assay (ALS) for higher grades, which is worth further monitoring. As these are duplicate samples H&SC does not consider it significant at this stage for the resource estimates. The other elements indicate no obvious biases, although there is a lack of samples at higher grades for the 2016 & 2018 drilling. • A recent review by H&SC of the results for the QAQC program from 2011 to 2019 shows there are no significant biases and no other irregularities in the analytical results apart from the aforementioned gold standard. • There are no details of the historic drill sample assaying or any QAQC. The assay results appear consistent with the more recent drilling. • All assay methods were deemed appropriate at the time of undertaking.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Qualified geologists on site are responsible for sample selection and sampling procedures. Significant intervals are regularly checked by site visits by senior company personal, including Adriaan van Herk, KGL's Chief Geologist, who acts as the Competent Person for the Exploration Results. • Sampling data is validated on entry into the MS Access database, using database check queries and Maxwell's DataShed. • Further validation is conducted when data is imported into Surpac and Leapfrog Geo software. • Hole twinning pre-2016 was occasionally conducted at Reward and Bellbird with mixed results. This may be due to inaccuracies with historic hole locations rather than mineral continuity issues. There has been no hole twinning during the 2016-2019 campaigns as the vast majority of mineral intervals have been tested by diamond coring. • For the resource estimation purposes, assay results below detection limits as defined by the laboratory were converted to half the reported lower detection limit. • Default low grade assay values were inserted into the database for the historic drilling where there were data gaps from the selective sampling.
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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• For the KGL drilling surface collar surveys were picked up using a Trimble DGPS, with accuracy to 1 cm or smaller. • Downhole surveys were taken during drilling with an AXIS or Reflex survey tool at 10m intervals. • All drilling by Jinka Minerals and KGL is referenced on the MGA 94 Zone 53 grid. All downhole magnetic surveys were converted to MGA 94 grid. • For Reward there are concerns about the accuracy of some of the historical drillhole collars. Some of these collars were checked with a Gyrosmart gyro and Azimuth Aligner. • There is no documentation for the downhole survey method for the historical drilling.

Criteria	JORC Code explanation	Commentary
		• A digital terrain model (DTM) was constructed based on topographic mapping using a LiDAR survey by Total Earth Solutions Pty Ltd surveys in 2017. The drill hole collar elevations were reconciled with the DTM elevations at the collar coordinates for each drill hole
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Drilling at Rockface was on nominal 50m centres with downhole sampling on 1m intervals. • Drilling at Reward was on 25m spaced sections in the upper part of the mineralisation extending to 50m centres with depth and ultimately reaching 100m spacing on the periphery of mineralisation. • For Reward shallow oxide RC drilling was conducted on 80m spaced traverses with holes 10m apart. • The drill spacing for all areas is appropriate for resource estimation and the relevant classifications applied. • A small amount of sample compositing has been applied to some of the near surface historical drilling.
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.* • *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.*	• Holes were drilled perpendicular to the strike of the mineralization; the current default angle is -55 degrees but holes vary from -45 to -80. • Drilling orientations are considered appropriate and no obvious sampling bias was detected.
Sample security	• *The measures taken to ensure sample security.*	• Samples were stored in sealed polyweave bags on site and transported to the laboratory at regular intervals by KGL staff or a transport contractor • There is no documentation on sample security for the historic drilling.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The sampling techniques are regularly reviewed internally.

1.2 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 Jervois project is within E30242 100% owned by Jinka Minerals and operated by Kentor Minerals (NT), both wholly owned subsidiaries of KGL Resources. • The Jervois project is covered by Mineral Claims and an Exploration licence owned by KGL Resources subsidiary Jinka Minerals.

Criteria	JORC Code explanation	Commentary
	) *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	
Exploration done by other parties	) *Acknowledgment and appraisal of exploration by other parties.*	) Previous exploration has primarily been conducted by Reward Minerals, MIM and Plenty River) The work conducted appears to be of a reasonable standard for the time it was completed.
Geology	) *Deposit type, geological setting and style of mineralisation.*	) EL30242 lies on the Huckitta 1: 250 000 map sheet (SF 53-11). The tenement is located mainly within the Palaeo-Proterozoic Bonya Schist on the north eastern boundary of the Arunta Orogenic Domain. The Arunta Orogenic Domain in the north western part of the tenement is overlain unconformably by Neo-Proterozoic sediments of the Georgina Basin.) The stratabound mineralisation for the project consists of a series of complex, narrow, structurally controlled, sub-vertical sulphide/magnetite-rich deposits hosted by Proterozoic-aged, amphibolite grade metamorphosed sediments of the Arunta Inlier.) Mineralisation is characterised by veinlets and disseminations of chalcopyrite (and pyrite) in association with magnetite. In the oxide zone which is vertically limited malachite, azurite, chalcocite are the main Cu-minerals.) Massive to semi-massive galena in association with sphalerite occur very locally as high-grade pods of limited extent with oxide equivalents including cerussite and anglesite in the oxide zone. Generally, these pods are associated with more carbonate-rich host rocks occurring at Reward South, Reward and Bellbird North.
Drill hole Information	) *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 (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.*) *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.*	) Exploration Results are not being reported) Drilling results have been documented in previous statements to the ASX. KGL Resources usually reports these in the table called “Table 1 Summary of significant results” of each ASX announcement.
Data aggregation methods	) *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high*	) Exploration Results are not being reported.

Criteria	JORC Code explanation	Commentary
	grades) and cut-off grades are usually Material and should be stated.) *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.*) *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	
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.*) *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	) At Rockface and Reward the drilling has generally intersected the mineralisation at high angles to the mineralisation) At Reward a minor amount of the historic drilling is at sub-optimal angles to the mineralisation.
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.*	) Exploration are results not being reported.
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.*	) Exploration results are not being reported.
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.*	) Real time DGPS is used for outcrop mapping, surface sampling and all geophysical surveys.) Downhole EM Survey results are reported in KGL ASX announcements, normally as an illustration in geological sections. The downhole EM tends to accurately predict the position and extent of the copper mineralisation
Further work	) *The nature and scale of planned further work (e.g. tests for lateral*	) Infill and resource expansion drilling is planned for both Rockface and Reward to upgrade the resource estimates and

Criteria	JORC Code explanation	Commentary
	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.*	expand the size of the resource estimates.

1.3 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.*	• Limited validation of the drillhole database was conducted by H&S Consultants (H&SC) to ensure the database is internally consistent. Validation included checking that no assays, density measurements or geological logs occur beyond the end of hole and that all drilled intervals have been geologically logged. The minimum and maximum values of assays and density measurements were checked to ensure values are within expected ranges. Checks have been made for duplicate and overlapping samples. • H&SC has not performed detailed database validation or an audit but KGL personnel take responsibility for the accuracy and reliability of the data used to estimate the Mineral Resources. • The project has been hampered by a lack of continuous sampling and assaying in the historical data for Reward, including what looks like missing assays. • At Rockface all but one holes used in the new underground resource estimation are new diamond holes drilled within the last 3 years. The confidence in the hole locations and directions is much greater than other areas at Jervois, mainly due to the use of DGPS surveying of collars and gyroscopic downhole surveys.
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.*	• Regular site visits have been carried out by Adriaan van Herk, KGL's Chief Geologist, who acts as the Competent Person with responsibility for the integrity and validity of the database on which resource estimates were conducted. • Simon Tear of H&SC, Competent Person for the reporting of the Mineral Resource estimates, visited site in August 2011 for 4 days. He has completed several resource updates in the past 8 years and has been party to all new drilling information.
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	• H&SC has completed new geological interpretations, as wireframes, for the Rockface and Reward mineral lodes. The latter are partly based on the 2015 interpretations but also based on a nominal 0.1-0.2% copper cut-off grade that has been used in conjunction with logged lithology, multielement assays, including sulphur, downhole geophysical modelling and geological sense. The 25m spaced cross sectional interpretation was extended to surface in both cases where drilling results permitted and tied in with surface mapping. The latest wireframe interpretations are very similar to the original geological interpretations with the additional drilling confirming the

Criteria	JORC Code explanation	Commentary
	estimation. • The factors affecting continuity both of grade and geology.	geological basis for the lode design. • The strata-bound mineralisation at Jervois comprises structurally controlled disseminations and veinlets of copper sulphide mineralisation (locally oxidised near surface) associated with a broader magnetite alteration (discernible from iron assays and magnetic susceptibility measurements). The structural zones tend to be narrow, steep to vertical dipping structures parallel to the host stratigraphy and eminently traceable at surface from mapping and in the airborne EM data. They are reasonably well defined by the drilling data. • Host stratigraphy can be defined by multielement data in particularly Fe, S, Ca, Mn, P and Ba in varying amounts for Rockface and Reward. • The structural nature to the mineralisation means there appeared in some cases to be lensing, bifurcations, small fault offsets and possible subtle en-echelon zoning. The strike and dip of the mineral zones vary slightly but predominately strike parallel to the stratigraphy. Where no drill data exists along strike the wireframes were extended 25 metres beyond the last drill hole intercept. These wireframes were treated as hard boundaries for the estimation of each of the elements. • The Rockface mineralisation has been interpreted as two steeply plunging oreshoots, within a broader magnetite-rich zone, namely the Main Lode and the North Lode. It is uncertain at this stage if the North Lode is a fault offset of the Main Lode or the product of an isoclinal fold with a sub-vertical fold hinge. It is apparent that copper mineralisation forms both sharp and gradational contacts with the host rocks. • A review of the previous interpretation for the lead mineralisation at Reward and the lack of the distinct high grade lead mineralisation in the recent drill intercepts has suggested an alternative interpretation of smaller lenses than advocated in 2015. A more conservative approach has been used for assessing the lead resource estimates this time around. • In 2015 KGL provided surfaces representing the base of oxidation for the Bellbird, Reward & Reward South deposits, which required limited modifications by H&SC, using a combination of geological logs and sulphur assays. These have been used with the current estimates. • H&SC is aware that alternative interpretations of the mineralised zones are possible but consider the wireframes to adequately approximate the locations of the mineralised zones for the purposes of resource estimation. Alternative interpretations are unlikely to have a large impact on the global resource estimates.
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.*	• The Main Lode resource estimates for Rockface at a 1% copper cut off have dimensions of 300m along strike (E-W), 600m down dip and ranges between 2-40m in horizontal thickness. It is traceable from surface outcrop although the estimates have been reported from below the 200mRL. Potentially economic mineralisation looks to have been closed off along strike and down dip. The North Lode resource estimates have a strike length of 300m and a down dip extent of 400m, ranging in horizontal thickness from 2-40m for the same copper cut off. The top of the mineralisation is at 0mRL ie 350m below surface. Mineralisation for the North Lode appears to be open to the east and at depth • The underground resource estimates at Reward for a 1% copper cut off comprise a strike length of 1.5km with an almost vertical to steep west dip for 300m below the 200m RL varying in

Criteria	JORC Code explanation	Commentary
		horizontal thickness from 2m to 25m. Mineralisation appears open at depth around the Reward Deeps area. • The open pit resource estimates at Reward occur over a similar strike length to the underground estimates with a similar horizontal thickness range down to the 200m RL.
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 maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. 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.*	• The copper, silver and gold block grade interpolation was undertaken with Ordinary Kriging in the GS3 software (H&SC in-house) for Rockface and Ordinary Kriging with dynamic interpolation in the Micromine software for Reward with the modelled data loaded into new block models created in the Surpac mining software for resource review and reporting. • H&SC considers Ordinary Kriging to be an appropriate estimation technique for the type of copper, silver and gold mineralisation and extent of data available at Rockface & Reward. • 1m composites were used for estimation of both areas. With the new Rockface drilling a total of 2,431 composites were used for the two lodes with a slight majority for the Main Lode, whilst at Reward a total of 10,539 composites were used for a series of lodes. • H&SC used a series of wireframes that outline zones of significant mineralisation broadly equating to a nominal 0.1-0.2% copper cut off. The wireframes were treated as hard boundaries so that only composites from within each wireframe were used to estimate the blocks in the respective wireframe. • No top cuts were applied to the Rockface composites as the data was well structured and did not appear to be skewed. The same observations were made for the Reward composite data. • KGL have informed H&SC that they plan to recover gold and silver as by-products. No assumptions were made regarding the recovery of the by-products. The resources are reported using a cut-off based on the copper grade. • H&SC has modelled bismuth composite data on the assumption that it is a deleterious element, but KGL are of the opinion that bismuth may potentially be an economic by-product. Sulphur has also been modelled in an effort to provide an understanding of possible acid mine drainage. • Drill spacing for Rockface is nominally 50m (X) by 50m (Z) with downhole sample spacing of 1m. For Reward, 25m by 25m drill spacing generally exists above the 200mRL becoming 50m (X) by 50m (Z) locally below the 200m RL within wider spaced drilling up to 150m (X) by 150m (Z). Downhole sample spacing is 1m. • Block dimensions for Rockface are based on an assumption of underground extraction and discussions with KGL's mining consultants. For Rockface this has resulted in a block size of 15m by 2m by 15m (E, N, RL respectively) with sub-blocking to 3.75m by 0.5m by 3.75m. The longest horizontal dimension was chosen as it is nominally a third to a half of the distance between drillhole sections (normal industry practice). The vertical dimension was chosen to reflect the data distribution and the relevant mining method. The thinnest dimension was chosen to reflect the sample spacing and anisotropy of mineralisation. For Reward the combination of open pit and underground extraction methods necessitated in two block models with different block dimensions. The open pit model has a block size of 5m by 10m by 5m (E, N, RL respectively) with sub-blocking to 2.5m by 5m by 2.5m. Whereas the Reward Underground deposit has a block size of 2.5m by 10m by 10m (E, N, RL respectively) with sub-

Criteria	JORC Code explanation	Commentary
		blocking to 1.25m by 5m by 5m. • Search domains were created for Rockface, reflecting subtle variations in dip and strike angles of the Main (2 domains) and North (3 domains) Lodes. Axes rotations of the search ellipses were designed to match the variable dip and strike of the mineralisation. • For Rockface a 3 pass search strategy was employed for both lodes with an initial Indicated Resource search (Pass 1) of 60m by 5m by 60m with a minimum number of 12 data and 4 octants. This was expanded in two stages to an Inferred Resource maximum search (Pass 3) of 105m by 9m by 105m with a minimum of 6 data and 2 octants. A second 3 pass search strategy (Passes 4 to 6) was used to generate additional Inferred Resource within the interpreted mineral wireframes with a maximum search radius of 150m by 12.5m by 150m with minimum data for the Pass 4 search being 6 decreasing to 3 for the Pass 6 search. The only hard boundaries were the mineral wireframes. • For the Reward Underground deposit a 4-pass search strategy was employed for all lodes with a maximum Indicated Resource search distance (Passes 1&2) of 10m by 60m by 60m with a minimum number of 17 data, using a minimum number of 3 holes. This was increased to 20m by 120m by 120m with a minimum of 8 data and 1 drillhole (Pass 4). • All reported mineralisation for the underground resource estimates is below the base of oxidation. • The composites exhibit a strong correlation between copper and silver and a weak to moderate gold to silver correlation. Variography showed poor/limited continuity for all three elements which is due to a combination of the lack of drilling data, the narrowness of the lodes, the style of mineralisation and subtle undulations in both dip and strike of the mineralisation. • The block model was reviewed visually by H&SC and it was concluded that the block model fairly represents the grades observed in the drill holes. H&SC also validated the block model statistically using a variety of histograms and summary statistics. • The updated estimates are comparable to previous estimates. Generally, for both underground deposits there has been a tonnage increase that is due to an expanded geological model based on the recent drilling and has included more peripheral lower grade mineralisation and hence the drop in grade. The amount of contained metal is approximately the same. • No mine production data is available for either area.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages of the Mineral Resources are estimated on a dry weight basis. • No determination of moisture content has been made.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The underground resource estimates for Rockface and Reward are reported at a cut off of 1% copper with block centroids, including sub-blocks, inside the relevant mineral wireframe below the 200mRL level. • At Reward an additional adjustment to the estimates was made by excluding blocks of lead mineralisation >2%Pb. The amount of excluded blocks is relatively small (~2%). • The cut off grades have been advised to H&SC by KGL and follow on from previous mining studies.

Criteria	JORC Code explanation	Commentary
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.*	The Rockface and Reward Underground Mineral Resources were estimated on the assumption, based on advice supplied by KGL, that the resources will be targeted using conventional underground blasting and long-hole stoping mining methods with cemented rock fill. Minimum mining dimensions are envisioned to be around 3mx3mx3m. Mineral extraction will likely to be via decline haulage to surface. The resource estimates include some internal mining dilution, but no allowance for external dilution.
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.*	Mineral processing is assumed to be conventional ore crushing and floatation of the chalcopyrite mineralisation to produce a copper concentrate. Results from scoping and prefeasibility level metallurgical testwork were used in the design of a processing facility. The intent is to process ore on site at Jervois at a certain production rate, producing a sellable copper concentrate product for shipment. A Sulphide Flotation Testwork Report for the 2015 PFS was prepared for KGL Minerals Limited by AMEC Limited. No metallurgical factors where used to determine the resource. Sample selection and compositing for the metallurgical testwork program procedure involving continuous drill hole intersection samples making up the variability composite. Various amounts of variability composites were then blended to create four master composites to represent the oxide and sulphide components of each of the Bellbird and Reward deposits. An extended suite of head assays were conducted on variability and master composites. The lithologies within the tenement include quartzo-feldspathic muscovite and sericite schists, ranging from pelitic to psammo-pelitic. There are also local occurrences of cordierite, sillimanite, garnet and andalusite. The mine sequence also contains chlorite schist, garnet, magnetite quartzite, calc silicates and impure marble. The mineralisation at the Reward, Rockface and Bellbird deposits is characterised by disseminations, veinlets and large masses of chalcopyrite, associated with magnetite-rich alteration within a psammite. The disseminated style of mineralisation tends to be of relatively lower grade and appears to be emplaced along specific strata. Favoured host rocks are meta-sandstones and meta-carbonates. Massive chalcopyrite and chalcopyrite as matrix fill in breccias tend to be of relatively higher grade and appear to be structurally emplaced in structural-chemical traps. The chemical traps are magnetite-rich horizons. The structural traps are isoclinal fold hinges, related to compressive ductile deformation during amphibolite-facies metamorphism. stratiform/bound copper and/or lead-silver-zinc sulphides within zones of massive/semi-massive pyrite associated with variable garnet and calc-silicate alteration. Mineralogical analysis using QEMSCAN (and XRD) identified chalcopyrite (12%) to be the dominant economic mineral, with

Criteria	JORC Code explanation	Commentary
		minor presence of galena, sphalerite, bismuthinite and molybdenite. Pyrite (18%) was the only sulphide gangue mineral, whilst magnetite (27%) and quartz (31%) were the main non-sulphide gangue minerals.) Comminution tests including SMC tests, JK drop weight tests, Bond ball mill tests, Bond rod mill tests and Bond abrasion tests, have been conducted on several samples from the Bellbird and Reward deposits.
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 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.*	) The Jervois Project lies within a broad open area of relatively flat ground that will allow for the easy construction of mine facilities.) The broad land systems of the area include Bond Springs (bold rocky hills, low rugged undulating plains and narrow plains, metamorphic hills, sparse low tree woodland), Sonder (bold east-west trending sandstone ridges, sandstone ranges of mulga and witchetty bush) and Unca (gently undulating stony plains, patches of calcareous soils and gidyea).) Vegetation is typical semi-arid bushland of Central Australia – sparse acacia shrubland with grass understorey.) Environmental baseline field surveys have not recorded any threatened flora species with only two near-threatened flora species listed under the Territory Parks and Wildlife Conservation Act recorded.) Environmental baseline field surveys to date have not recorded any threatened fauna species listed under the Territory Parks and Wildlife Conservation Act or the Environment Protection and Biodiversity Conservation Act.) Field surveys recorded only one listed migratory species under the EPBC Act in 2012 – the Australian Painted Snipe. This species was not recorded in the subsequent surveys of 2013, 2017, 2018 or 2019.) The field survey ecologists have reported that the Project is unlikely to have a significant impact on threatened species in the area.) Surface water in the area is ephemeral with seasonal rainfall and creek flows. Unca Creek and its tributaries drain to the east through the Project area.) There is an existing man-made dam which was constructed in the 1970's and this is planned to be used as a water supply for the Project.) Groundwater investigations of the Project EL area describe the fractured rock groundwater system as very low yielding hosting water generally suitable for pastoral and industrial use only.) There has been previous mining activity at the Green Parrot open pit and some minor trial surface and underground mining at Reward and Bellbird.) Ground disturbance area for the Project has been estimated at 382 hectares, of which approximately 136 hectares will be located within the historic mining disturbance footprint. This will include some mine infrastructure, pits, part of the tailings storage facility, topsoil stockpiles and waste rock dumps.) There is potential for some acid mine drainage but carbonate sources are within 10km of the likely mineral processing site.) The area is remote but has had an established exploration camp since the 1980s) The area is directly connected to a wide and well maintained, unsealed road, which is currently being sealed in stages by the NT government (approximately 50% to date).) Sulphide content of the waste rock comprises pyrite and

Criteria	JORC Code explanation	Commentary
		marcasite at levels of 1-2% in strongly metamorphosed and annealed rocks.
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.*) *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.*	) Density data for Rockface and Reward consists predominantly of cut core samples matching the analytical sample interval, as either quarter core for HQ size or half core for NQ size. The dominant sample length is 1m.) The density measuring method is the weight in air/weight in water (the Archimedes principle).) This has amounted to 6,231 density samples for the Rockface mineral lodes and 7,493 samples for the Reward mineral lodes.) All samples were generally competent core with no obvious vughs.) Any density data from the oxidation zone is limited. However, oxidation via surface weathering has had only limited sub-surface penetration as many partially oxidised pieces of core have density values marginally less than the values for the fresh rock zone.) Density grades for Rockface were interpolated for the whole area using Ordinary Kriging on sample points in the drillhole database unconstrained by the mineral wireframes. The density grade interpolation used a similar search strategy as for the metal grade interpolation with the inclusion of the second 3 pass search strategy. The density modelling method ensured densities peripheral to the mineralisation were interpolated in anticipation of use in mine planning studies.) Density grades for Reward were interpolated for the mineral wireframes using Ordinary Kriging and the dynamic interpolation method as used for the metal block grade interpolation on 1m composited data points constrained by the mineral wireframes. The distribution of measured density data was not sufficient to populate all blocks within the mineral wireframes with an estimated density. Thus, additional data was created from applying 2015 default densities for the different lithologies recorded in the drillhole logging. This still resulted in a small number of blocks within the mineral wireframes with no density value, and these blocks were assigned an average density value based on a visual average of the surrounding blocks with grades.) Modelling of the Reward peripheral density for mining studies was completed as a separate exercise using Ordinary Kriging.
Classification	) *The basis for the classification of the Mineral Resources into varying confidence categories.*) *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).*) *Whether the result appropriately reflects the Competent Person's view of the deposit.*	) Mineral Resources for Rockface and Reward Underground mineralisation have been classified on the estimation search pass category subject to assessment of other impacting factors such as drillhole type and spacing, variography, drillhole location accuracy, geological logging and the geological model, sampling and assay issues with the historical drilling.) For Rockface Pass 1 material is classified as Indicated whilst the remaining Passes are classified as Inferred) For Reward Passes 1 & 2 are classed as Indicated whilst Passes 3 & 4 are classed as Inferred.) H&SC believes the confidence in tonnage and grade estimates, the continuity of geology and grade, and the distribution of the data reflect the Indicated and Inferred categorisation. H&SC has factored in the reliability of input data eg historical drill collar locations at Reward but KGL personnel take responsibility for the accuracy and reliability of the data used to estimate the Mineral Resources.) The estimates including their classification appropriately reflect

Criteria	JORC Code explanation	Commentary
		the Competent Person's view of the deposit.
Audits or reviews	) *The results of any audits or reviews of Mineral Resource estimates.*	) No audits or reviews have been conducted
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 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.	) The Mineral Resources have been classified using a qualitative assessment of a number of factors including geological understanding in conjunction with the drillhole type and spacing, drillhole locations, the QA/QC data and the density data.) The Mineral Resources are considered to be accurate globally, but there is some uncertainty in the local estimates due to the current drillhole spacing and lack of evidence for short scale grade continuity.) The geological understanding has been significantly improved since the 2015 resource estimates) No statistical or geostatistical procedures were used to quantify the relative accuracy of the resource. The Mineral Resource estimates of the Jervois deposits are sensitive to the cut-off grade applied and are considered to be global estimates.) A confidence issue surrounds the veracity of the historical data which impacts significantly on the lack of Measured Resource for Reward.) There is no reliable production data from the earlier Green Parrot/Reward South mining or the trial mining at Bellbird and Reward.