GUM CREEK GOLD PROJECT

MINERAL RESOURCES AT 30 SEPTEMBER 2016

Panoramic Resources Limited ("Panoramic") (ASX:PAN) hereby announces an update to gold Mineral Resources at the Gum Creek Gold Project. Since 30 June 2016, as part of the proposed partial divestment of Gum Creek, Panoramic has updated the Mineral Resources at Heron South, Specimen Well, Toedter and Kingfisher UG to comply with the requirements of JORC 2012, and removed four small resources previously reported under JORC 2004. **Total Mineral Resources at the Gum Creek Gold Project as at 30 September 2016 are 17.3Mt @ 2.25g/t Au for 1.25 million ounces contained gold**. Of the total, approximately 75% of the contained gold in Resource is classified as Indicated.

A breakdown of the Resources by deposit is shown in the following Table. Material Information Summaries for all deposits are given below, and JORC Table 1, Sections 1 and 3 are included in Appendix 1.

Mineral Resources (JORC 2012 compliant) at the Gum Creek Gold Project as at 30 September 2016.

Resource	Resource Date	Cut-off grade (g/t Au)	Mineralisation Type	Indicated		Inferred		Total		Contained Gold (oz)
				Tonnes	Au (g/t)	Tonnes	Au (g/t)	Tonnes	Au (g/t)	
Open Pit Resources										
Swan OC	Jun-15	0.7	Free Milling	2,250,000	2.57	990,000	2.36	3,240,000	2.51	261,100
Heron South	Aug-16	0.5	Refractory	1,135,000	2.20	2,000	1.32	1,137,000	2.20	80,400
Howards	Jul-13	0.4	Free Milling	5,255,000	1.07	716,000	1.01	5,971,000	1.06	204,000
Specimen Well	Aug-16	0.5	Free Milling			361,000	2.00	361,000	2.00	23,200
Toedter	Aug-16	0.5	Free Milling			690,000	1.54	690,000	1.54	34,200
Shiraz	Jul-13	0.4	Refractory	2,476,000	0.84	440,000	0.76	2,916,000	0.83	77,600
Underground Resources										
Swan UG	Jun-15	4.0/6.0	Free Milling	207,000	8.71	77,000	11.25	284,000	9.40	85,800
Swift UG	Jun-15	6.0	Free Milling			46,000	10.25	46,000	10.25	15,200
Kingfisher UG	Aug-16	3.5	Free Milling			391,000	6.14	391,000	6.14	77,200
Wilsons UG	Jul-13	1.0	Refractory	2,131,000	5.33	136,000	5.97	2,267,000	5.37	391,500
Total				**13,454,000**	**2.17**	**3,849,000**	**2.53**	**17,303,000**	**2.25**	**1,250,100**

Material Information Summary

In accordance with the ASX Listing Rules, a fair and balanced representation of the information provided in Appendix 1 must be presented in the main body of the ASX announcement. That representation follows below. Changes include upgrading the Mineral Resources at Heron South, Specimen Well, Toedter and Kingfisher to comply with the requirements of JORC 2012. A number of small Resources previously reported under JORC 2004 have been omitted. There has been no change to the other Resources. All other Gum Creek Mineral Resources remain unchanged from 30 June 2015 (*refer to Company's ASX announcement of 30 September 2015*) and the Company confirms that that it is not aware of any new information that materially affects the information included in the original market announcement of 30 September 2015 and that all material assumptions and technical parameters underpinning the previous estimates continue to apply and have not materially changed. The September 2016 Gum Creek Resource upgrades presented in this announcement are based on existing drill hole information. No new drill holes were completed during FY2016 and therefore no JORC Table 1, Section 2 Compliance Tables (Reporting of Exploration Results) are included in Appendix 1.

Swan and Swift

The Swan OC, Swan UG and Swift underground resources are discrete areas of a larger, single deposit. The Resources are in close proximity to one another and have been explored, mined and evaluated as a single entity by several companies since 1984 to the present.

Geology – the Swan and Swift resources formed as a series of conjugate vein sets and related tension gashes during NE-SW compression in the Gum Creek greenstone belt. The vein sets are preferentially developed in a more competent dolerite host unit that failed in a brittle manner during compression. Some mineralised quartz veining is also developed in basaltic rocks that surround the dolerite. The conjugate vein sets typically dip either moderately to steeply NE to E or shallowly SE to S.

Drilling techniques – both reverse circulation (RC) and diamond drilling (DD) techniques have been used to evaluate the Swan and Swift Resources. RC drilling up until 1989 used an Open Face hammer. After 1989, this was changed to downhole enclosed "face sampling" hammers. Drilling into open pit areas was mostly by RC, whereas the underground was mostly DD. Diamond holes collared from surface were tri-coned to 6 metres and cased with PVC. The weathered zone was cored using 1.5 metre HQ triple tube core barrel to minimise core loss and the holes were completed using a 3m NQ core barrel. Core recovery was generally excellent and hole deviation minimal.

Sampling techniques – RC drill cuttings were typically logged and sampled in 1m increments. Riffle splitters were typically used for dry samples with wedge or rotary splitters used for wet samples. Sampling of diamond core has involved 1m sampling in early work to sampling over geological intervals (down to 0.1m) in more recent holes. The diamond core has generally been half cored with some holes split at whole core and some at three quarter core.

Analysis method – assaying initially utilised the Aqua Regia process, but most assays used for resource estimation are by fire assay with an AAS finish using the site laboratory or off-site laboratories. Typically either a 30 or 50g charge has been used. After the year 2000, samples were assayed at the on-site laboratory at Gum Creek using the Leachwell method.

Estimation methodology – the Swan / Swift areas have been mined over a long period of time and are well understood in general, however locally, there can be large discrepancies due to the nature of the controlling structures. The Open Pit Resource is constrained to the optimised A$2,000/oz pit shell and covers an area of approximately 1.5km long, 1.1km wide and 200m deep. The Underground Resource is centred around existing workings and covers an area of approximately 1.1km long, 800m wide and is up to 300m below the optimised A$2,000/oz pit shell.

Open pit intersection selection for resource estimation was carried out using the following parameters:

- Cut-off Grade: 0.7g/t,
- Minimum Mining Width: 4m down-hole,
- Internal Dilution: up to 2m down-hole; and
- Edge Dilution: 1m either side down-hole.

The adjusted intersections were then used to create the resource wireframes. Block Modelling was carried out for Resources using the following parameters:

- Block Size: 2.5m North South, 2m East West, 1m RL;
- Block Discretisation: 1 East, 2 North, 1 RL;
- Search Type: Elliptical Octant;
- Maximum Number of Samples: 64;
- Interpolation: Inverse Distance Cubed; and
- Search Size: 60m down dip, 30m along strike, 3m across strike (These were obtained from historical variography).

For reporting purposes, material within the wireframes contains the reported Resource. Note: Reporting is not carried out on block cut-off grades, but within wireframed shapes which are at least 2,000 tonnes in size.

Underground intersection selection for resource estimation was carried out using the following parameters:

- Cut-off Grade: 2.0g/t Au; and
- Minimum Mining Width of 3m down-hole.

The adjusted intersections were then used to create the underground Resource wireframes. A length weighted average of the intersection samples within the wireframes was used to estimate the grade of the wireframe. The following top-cuts were adopted following analysis of the sampling distributions and grades:

- Swan Premium: 10g/t, 12g/t and 60g/t for the oxide, transition and fresh, respectively.
- Swan Bitter: 10g/t, 20g/t and 200g/t for the oxide, transition and fresh, respectively; and
- Swift: 20g/t, 30g/t and 30g/t for the oxide, transition and fresh, respectively.

Cut-off grade – for open pit Resources, a cut-off grade of 0.7g/t has been used based on estimated milling cost. The cut-off grade for underground Resources is a marginal cut-off grade based on estimated mining costs, overheads and milling. It does not include the estimated cost of development or refurbishment if required. This results in a higher cut-off grade of 6g/t for material distal to present underground workings and 4g/t for wireframes close to existing infrastructure.

Modifying factors – no other modifying factors have been applied.

Classification criteria – in general, for the open pit Resources, the shapes are extended a maximum of 15m along strike from an Intersection and 20m down dip. Intersections that were able to be wireframed into a shape that was on 2 or more sections as well as the cross structures were classified as Indicated. If singular Intersections were part of a structure over more than 1 section, but it was too difficult to produce a wireframe, then a cylinder was drawn around these areas which were also classified as Indicated. All other Intersections, as well as blocks more than 15m away from a drillhole were then classified as Inferred.

For the underground (UG) Resource, a bounding volume was used to define an Indicated category and an Inferred category of material. The Indicated boundary enveloped areas where there were either underground workings or a higher drilling density. Material outside of this envelope was defined as Inferred. The Inferred Resource carries a higher cut off grade due to it being further from infrastructure, thus requiring it to carry a higher capital cost. This was used only as a guide in selecting Indicated material as distance from existing workings was also used.

Prospects for eventual economic extraction – the historical mining and processing performance of the Swan and Swift areas, which was mostly conducted at A$ gold prices of $500/oz or less, is well documented. Recent mining studies and metallurgical testwork are in-line or marginally better than this historical performance. A Mining Proposal was granted by the WA Department of Mining and Petroleum (DMP) in 2014 for mining and processing Swift ore. There are no known issues which would affect this approval being extended to include Swan ore.

Heron South

Geology – the Heron South deposit is approximately 650m in length and ranges in thickness from 2m to 10m. The majority of mineralisation occurs in a steep east dipping shear although small pods of flat lying supergene mineralisation have also been interpreted. An existing pit was mined by previous owners to a depth of approximately 60m below surface.

Drilling techniques – the deposit was drilled using reverse circulation ("RC"), air-core ("AC") and core drilling ("DD") techniques. A total of 277 RC holes for 23,197m, 74 AC holes for 5,536m and 3 DD holes for 564m were completed. Of these, 36 RC holes and 47 AC holes were drilled by Panoramic in 2011 and 2012. The drill spacing is nominally 25m by 10m over the extent of the mineralisation. In the RC drilling, a 5¼" face sampling hammer was used. Diamond drilling was typically NQ2 in diameter.

Sampling techniques – for drilling by Panoramic after 2011, RC and AC holes were sampled by collecting 1m samples and splitting these down using a (cone and riffle splitter) to approximately 3kg sample sizes. DD core was sampled by sawing the core in half, with sample intervals typically ranging between 30cm and 1.2m based on geological logging. There is limited information recorded on the historical sampling methods by previous owners.

Analysis method – for drilling completed by Panoramic after 2011, all samples were submitted to a contract laboratory for fire assay analysis. Appropriate quality assurance and quality control (QAQC) protocols were in place to give confidence in sampling and assaying procedures, and included the use of reference standards, field duplicates, laboratory duplicates and blanks. For historic drilling, samples were analysed using Aqua Regia digest and AAS finish by contract and site laboratories. No details of historic QAQC are available, however the drilling by Panoramic has generally confirmed the results of the historic drilling.

Estimation methodology – the Mineral Resource estimate was completed by independent consultant, BM Geological Services Pty Ltd ("BMGS"). The estimate was constrained by mineralisation wireframes based on a 0.5g/t Au interpretation cut-off grade. Data within the wireframes was composited to 1m intervals and high grade cuts were then applied to the composites. Ordinary kriging was used for grade interpolation.

Cut-off grade – the Resource is reported at a cut-off grade of 0.5g/t. The cut-off grade was chosen based on an assessment of mineralisation continuity at this grade, and the assumption that the Resource potentially could be extracted by open pit mining. A high-level cost and revenue analysis assuming typical operating costs for Eastern Goldfields open pit gold operations and an A$1,700/oz gold price indicates a marginal cut-off grade of 0.5g/t Au is appropriate.

Modifying factors – only mineralisation with a minimum width of 2m and to a maximum depth of 200m was included in the Resource estimate as these are considered reasonable constraints for potential open pit mining methods. No metallurgical or environmental modifying factors have been considered.

Classification criteria – the close spaced drill density, high quality of geological and assay data sets, and good geological and grade continuity has allowed the majority of the deposit to be classified as Indicated Mineral Resource.

Prospects for eventual economic extraction – considering the good geological and grade continuity, favourable geometry, and relatively high grade compared to other open pit Resources, and potential suitability to extraction by open pit mining, Heron South is considered to have reasonable prospects for eventual economic extraction. Previous mining has also confirmed the amenability of this style of mineralisation to open pit mining.

Howards

Geology – Howards is classified as an Archaean orogenic shear hosted gold deposit. The basalt hosted shear strikes in a north south orientation and has a near vertical dip. The deposit is approximately 1,000m in length and up to 50m wide. Gold mineralisation at Howards is primarily confined to the shear zone and a series of north south oriented porphyries within the shear. Thin mineralised subsidiary shears emanate from the main shear zone in places. The shears are typically defined by a weak biotite rich (+/- albite) alteration fabric and the presence of up to 1-2% fine disseminated pyrite. Fine gold has been observed petrographically attached to these pyrites. Largely confined to the shear zone is a low density network of randomly oriented thin (1-3mm thick) quartz (+/- carbonate) veins. The veins contain traces of pyrite and chalcopyrite and tend to cause bleaching and weak albite alteration of the enclosing basalt.

Drilling techniques – the drilling methods use to evaluate Howards are Reverse Circulation (RC) and diamond drilling (DD). The RC drilling was typically completed utilising 5 ¼ inch hammers. Face sampling RC hammers were used by Panoramic. The DD drilling was either NQ/NQ2 (47.6mm /50mm) or HQ (63.5mm) diameter core. HQ size core was typically used for geotechnical holes cored from surface by Panoramic. The Howards Resource database subset contains 237 RC and DD holes for a total of 19,730m. Of this total, 75 RC and DD holes totalling 11,086m were drilled by Panoramic. In addition, the database contains 329 historical RAB holes (totalling 3,173m) which have not been used for resource estimation. The drill spacing is typically 20m by 30m and 40m by 40m grid spacing over the extent of the deposit.

Sampling techniques – the Howards deposit has been extensively sampled using RC and DD techniques. RC holes were sampled by collecting 1m samples and splitting these down to a ~3kg assay sample using either automated on-board rig cone splitters or manual riffle splitters. Diamond holes were either NQ2 or HQ size and were sampled by cutting the core in half to honour geologically logged intervals between 30cm and 1m in length.

Analysis method – all recent Panoramic resource assay samples (7,056 in total) were submitted to ALS Laboratories in Perth for gold analysis by FA30 (Fire Assay) technique. There are 5,261 historical RC and DD gold assays in the Howards database, of which 3,108 samples (59%) are recorded as having an un-known technique. Of these assay results, 2,565 samples (83%) are described as “unknown digest, AAS finish” which implies they are also by Fire Assay technique.

Estimation methodology – grade estimation of the Howards deposit was completed using Ordinary kriging (OK) in Surpac™ software. Variogram analysis and modelling for the OK estimate was completed using Supervisor™ software. Two metre composites were generated from the drillhole database and then tagged to mineralised wireframes generated at a 0.3g/t gold grade cutoff. The wireframe modelling conditions included, a minimum downhole width of 2m of mineralisation and internal dilution of up to 3m downhole could be included if the entire intercept graded above 0.3 g/t. If dilution was greater than 3m, then separate lodes were generated if geological/grade continuity was permissible (typically used trouser legs on the fringes of the main lode).

The data was reviewed through disintegration analysis and reviewing the raw statistics to determine whether applying a top-cut was necessary. It was decided a topcut was required to reduce the high CV and limit the effect of these higher grades on the estimate. The OK estimate was run using a top-cut, with a top-cut of 10g/t being applied (removing the top six outliers from the dataset). The dataset was then normal scores transformed to generate variogram models. The variogram models had moderate to low nuggets with a range of maximum continuity along the main axis of 32m.

The OK block model was constructed with a parent cell size of 20m Y 20m X and 10m Z with sub-celling to 5m Y 5m X and 1.25m Z. All estimations completed at the parent cell resolution. Data spacing is typically on 20m sections by northing and 10m on section by easting. The size of the initial search ellipse was based on the variography with a cascading five pass estimation used to populate cells. The first estimation pass utilised a minimum of 12 and maximum of 32 samples, using a major distant search of 35m without octant constraints. The search criteria were then changed for the remaining estimation passes. The composites were generated at 2m downhole and the ore wireframes were maintained at a minimum width of 2m downhole to simulate a minimum mining width, assuming an open pit mining operation using 120 tonne excavators.

Cut-off grade – the mineralisation wireframes for the OK estimate were modelled on a gold grade cut off of 0.3g/t. This value was determined by visual assessment of grade continuity associated with the host (controlling) shear. At this cut-off grade, the host (controlling) shear exhibits excellent continuity along strike. The Howards mineralisation is up to 50m wide and outcrops at surface, it was therefore deemed important to estimate and incorporate in the block model this lower grade mineralisation lying at surface. The Howards Resource is reported at a cut-off grade of 0.4g/t Au.

Modifying factors – the Howards deposit has been modelled under the assumption that it will be mined by conventional open pit mining methods, utilising excavators and trucks. This would typically entail 5m bench heights with 2.5m flitches and the use of 120 tonne excavators with a bucket width of approximate 2m to mine the majority of the pit. The potential then exists to engage a smaller 30 tonne excavator to mine thinner higher-grade ore zones in order to maximise head grade and reduce dilution. Mineralisation wireframes were constructed to a minimum downhole length of 2m to replicate the smallest possible mining selectivity.

Classification criteria – the classification of the OK Resource estimate has been weighted by the strong geological along strike continuity of the host shear. The gold mineralisation, which is controlled by and bounded by the shear, is highly continuous over a 780m strike length. The bulk of the Resource has been classified as Indicated (>80%) with the remaining amount (<20%) inferred and unclassified.

Prospects for eventual economic extraction – considering the strong geological and grade continuity, wide mineralisation widths, favourable geometry, and verifiable (testwork based) metallurgical free milling recoveries of approximately 90%, and potential suitability to extraction by open pit mining, Howards is considered to have reasonable prospects for eventual economic extraction.

Specimen Well

Geology – Specimen Well is a shear hosted deposit approximately 200m long and has a down dip extent of 170m and remains open at depth. The deposit consists of one main lode, which varies in thickness from 1m to 10m. There has been no historic mining at the deposit.

Drilling techniques – the deposit was drilled using RC, AC and RAB techniques. A total of 73 RC holes, 40 AC holes and a number of RAB holes were considered in the estimate. Five RC holes were drilled by Panoramic, with the remainder completed by previous operators. The drill spacing is nominally 25m by 12m over the extent of the mineralisation. In the RC drilling, a 5¼" face sampling hammer was used.

Sampling techniques – RC and AC holes were sampled by collecting 1m samples from a rig mounted cyclone and riffle splitter.

Analysis method – all samples were submitted to a contract laboratory for fire assay analysis. No details of historic QAQC were available, however sampling and assaying procedures were identical to those used in other Gum Creek deposits where recent drilling and QAQC work by Panoramic has verified the historic data.

Estimation methodology – the Mineral Resource estimate was completed by independent consultant, BMGS. The estimate was constrained by mineralisation wireframes based on a 0.5g/t Au interpretation cut-off grade. Data within the wireframes was composited to 1m intervals and high grade cuts then applied to the composites. Inverse distance squared interpolation was used for estimation.

Cut-off grade – results were reported at a cut-off grade of 0.5g/t, based on potential for open pit mining at the deposit due to its shallow nature and favourable geometry.

Modifying factors – only mineralisation with a minimum width of 2m and to a maximum depth of 180m was included in the Resource estimate as these are considered reasonable constraints for potential open pit mining methods. No metallurgical or environmental modifying factors have been considered.

Classification criteria – the close spaced drilling data is adequate for resource definition, however variability in gold grade and low geological confidence has resulted in the entire deposit being classified as Inferred Mineral Resource.

Prospects for eventual economic extraction – considering the shallow nature and favourable geometry for extraction by open pit mining, Specimen Well is considered to have reasonable prospects for eventual economic extraction.

Toedter

Geology – mineralisation at Toedter occurs at an amphibolite / ultramafic contact and is associated with quartz veining in east dipping shears. It strikes north at approximately 355° and dips moderately to the east at approximately 50°. There are 20 individual ore surfaces or domains and the total strike length is around 240m. The deposit consists of parallel stacked lodes, which vary in thickness from 1m to 10m and are spaced at between 2m and 15m. There has been no historic mining at the deposit.

Drilling techniques – the deposit was drilled using RC, DD and RAB techniques. A total of 128 RC holes, 3 DD holes and a number of RAB holes were considered in the estimate. Two RC holes were drilled by Panoramic, with the remainder completed by previous owners. The drill spacing is nominally 20m by 10m over the extent of the mineralisation. In the RC drilling, a 5¼" face sampling hammer was used.

Sampling techniques – RC holes were sampled by collecting 1m samples from a rig mounted cyclone and riffle splitter. DD holes were sampled at 1m intervals or to geological boundaries.

Analysis method – all samples were submitted to a contract laboratory for fire assay analysis. No details of historic QAQC were available, however sampling and assaying procedures were identical to those used in other Gum Creek deposits where recent drilling and QAQC work by Panoramic has verified the historic data.

Estimation methodology – the Mineral Resource estimate was completed by independent consultant, BMGS. The estimate was constrained by mineralisation wireframes based on a 0.5g/t Au interpretation cut-off grade. Data within the wireframes was composited to 1m intervals and high grade cuts then applied to the composites. Inverse distance squared interpolation was used for estimation.

Cut-off grade – results were reported at a cut-off grade of 0.5g/t, based on potential for open pit mining at the deposit due to its shallow nature and favourable geometry.

Modifying factors – only mineralisation with a minimum width of 2m and to a maximum depth of 120m was included in the Resource estimate as these are considered reasonable constraints for potential open pit mining methods. No metallurgical or environmental modifying factors have been considered.

Classification criteria – the close spaced drilling data is adequate for resource definition, however variability in gold grade and low geological confidence has resulted in the entire deposit being classified as Inferred Mineral Resource.

Prospects for eventual economic extraction – considering the shallow nature and favourable geometry for extraction by open pit mining, Toedter is considered to have reasonable prospects for eventual economic extraction.

Shiraz

Geology – Shiraz is classified as an Archaean orogenic shear hosted gold deposit. It strikes in a north north west orientation at 330 degrees and dips at approximately 80 degrees towards the west. The deposit is approximately 700m in length. Mineralisation is hosted within a broad shear quartz vein system within the Shiraz dolerite. Mineralisation consists of fine grained needles of arsenopyrite with disseminated to blebby pyrrhotite and trace pyrite. Gold mineralisation is fine grained and exhibits a strong correlation with arsenopyrite.

Drilling techniques – the drilling method used to evaluate Shiraz is predominantly Reverse Circulation (RC). The Shiraz Resource database subset contains 142 RC and 2 diamond (DD) drill holes for a total of 12,656m. Of this total, 20 RC holes totalling 2,614m were drilled by Panoramic in 2013 as part of a Project feasibility study. In addition, the database contains 196 historical RAB holes (totalling 5,676m which have not been used for resource estimation). The historic RC drilling was typically completed using 5 ¼ inch hammers. Face sampling, 5 ¼ inch RC hammers were used by Panoramic. The core size of the two historical DD holes is unknown. The drill hole spacing is typically a 20m by 20m grid pattern over the extent of the mineralisation.

Sampling techniques – RC holes were sampled by collecting 1m samples and splitting these down to a ~3kg assay sample using either automated on-board rig cone splitters or by manual riffle splitting.

Analysis method – all recent Panoramic resource assay samples (1,670) were submitted to ALS Laboratories in Perth for gold analysis by FA30 (Fire Assay) technique. Of the 5,871 historical RC and DD gold assays in the Shiraz database, 3,566 samples (61%) are recorded as having an "unknown digest, AAS finish" which implies they are also by Fire Assay technique. In addition, results for 1,836 QAQC samples (24% of the entire analytical database) are recorded in the database.

Estimation methodology – the Shiraz mineralised domain is approximately 700m long and has a down dip extent of 150m in the southern end of the deposit and is open at depth. The deposit consists of a main lode that varies between 2m and 25m thick with numerous parallel and sub-parallel lodes at various positions along the length of the deposit.

Grade estimation of Shiraz deposit was completed using Ordinary Kriging (OK) in Surpac™ software. Variogram analysis and modelling for the OK estimate was completed using Supervisor™ software. Two metre composites were generated from the drillhole database and then tagged according to mineralised wireframes generated at a 0.4g/t gold grade cut-off. The wireframe modelling conditions included, a minimum down-hole mineralisation width of 2m, internal dilution of up to 3m downhole could be included if the entire intercept graded above 0.4 g/t. If dilution was greater than 3m, then separate lodes were generated if geological/grade continuity was permissible. The data was reviewed through disintegration analysis. Geo-statistical analysis of the raw assay data determined that topcuts were not warranted, therefore all estimates were run as Uncut. The dataset was then normal scores transformed to generate variogram models. The variogram models had moderate to low nuggets with range of maximum continuity along the main axis of 26m.

The OK block model was constructed with a parent cell size of 20m Y 20m X and 10m Z with sub-celling to 2.5m Y 2.5m X and 1.25m Z. All estimations were completed at the parent cell resolution. Data spacing is typically on 20m sections by northing and 10m on section by easting. The size of the initial search ellipse was based on the variography with a cascading five pass estimation used to populate cells. The first estimation pass utilised a minimum of 12 and maximum of 32 samples without octant constraints. The search criteria were then changed for the remaining estimation passes. The composites were generated at 2m downhole and the ore wireframes were maintained at a minimum width of 2m downhole to simulate a minimum mining width assuming an open pit mining operation using excavators of approximately 120 tonnes.

Cut-off grade – the mineralisation wireframes for the OK estimate were modelled on a gold grade cut off of 0.4g/t. This value was determined by visual assessment of the strong, along strike grade continuity associated with the host (controlling) shear. At higher cut-off grades the Shiraz mineralisation quickly breaks up in to a complex series of very difficult to model lenses. The Shiraz mineralisation is up to 50m wide and outcrops at surface, it was therefore deemed important to estimate a global resource tonnes and grade that could form the basis on an open pit mining study.

Modifying factors – the Shiraz deposit has been modelled under the assumption that it will be mined by conventional open pit mining methods using excavators and trucks. This would typically entail 5m bench heights with 2.5m flitches and the use of 120 tonne excavators with a bucket width of approximately 2m to mine the majority of the pit. The potential then exists to engage a smaller 30 tonne excavator to mine thinner higher-grade ore zones in order to maximise head grade and reduce dilution. Mineralisation wireframes were constructed to a minimum downhole length of 2m to replicate the smallest possible mining selectivity.

Classification criteria – the classification of the OK resource has been weighted by the strong geological continuity (over a 750m strike length) of the mineralisation within the Shiraz Dolerite. The southern extent of the deposit has a higher drill density spacing of 20m by 10m compared with the northern extent which is less densely drilled at 40m by 20m. The bulk of the Resource has been classified as Indicated, including the less densely drilled northern extent of the deposit (although intuitively the northern extent is of lower confidence).

Prospects for eventual economic extraction – considering the strong geological and grade continuity of the Shiraz deposit, wide mineralisation widths, favourable geometry (outcropping at surface and shallow depths), proximity to Wilsons and a future Gum Creek mill and potential suitability to extraction by open pit mining, Shiraz is considered to have reasonable prospects for eventual economic extraction.

Kingfisher UG

Geology – the Kingfisher deposit is approximately 350m in length and covers a 400m vertical extent with a typical vein thickness of 3m. The mineralisation occurs in quartz veins dipping at 60o west, developed in sheared basalt and basaltic tuff. The deposit has been previously mined by open pit and underground methods.

Drilling techniques – the deposit was drilled using RC and DD techniques. A total of 12 RC holes and 18 DD holes were used in the estimate, with all of them completed by previous owners between 1990 and 1995. The drill spacing is nominally 40m by 40m over the extent of the reported Mineral Resource, however much closer drill spacing is evident in the previously mined portions of the deposit.

Sampling techniques – in the RC drilling, a face sampling hammer was used with 1m samples collected via a riffle splitter. Diamond drilling was NQ diameter with sampling to geological boundaries.

Analysis method – the historic drilling was reported to be assayed by a fire assay technique. Specific QAQC programs for the Kingfisher drilling were not identified, however the extensive open pit and underground production largely verified the magnitude and extent of mineralisation and did not show any assay bias.

Estimation methodology – the Mineral Resource estimate was completed by independent consultant, Carras Mining Pty Ltd. The estimate was constrained by mineralisation wireframes based on a 3.0g/t Au interpretation cut-off grade with 0.5m edge dilution added to each side of the lode. Data within the wireframes was composited to 1m intervals and high grade cuts then applied to the composites. Inverse distance squared interpolation was used for estimation.

Cut-off grade – results were reported at a lode cut-off grade of 3.5g/t, to reflect a typical cut-off grade for mechanised underground mining of narrow lodes.

Modifying factors – only mineralisation with a minimum width of 2m and to a maximum depth of 120m was included in the Resource estimate as these are considered reasonable constraints for potential open pit mining methods. No metallurgical or environmental modifying factors have been considered.

Classification criteria – based on the relatively broad drill hole spacing and uncertain geological continuity, the entire deposit has been classified as Inferred Mineral Resource.

Prospects for eventual economic extraction – the high grade nature of the mineralisation, and previous successful underground mining at the deposit suggests good potential for eventual economic extraction. Extensive drilling will be required to increase the confidence in the interpretation to allow detailed evaluation of the deposit to be carried out.

Wilsons Underground (UG)

Geology – The Wilsons UG deposit consists of three discrete, tabular, strongly mineralised shoots that dip 50° to 70° to the west and plunge steeply to the north. The shoots are encompassed by weakly mineralised envelopes and are confined within the regionally persistent Wilsons Shear. The shear and enclosing mineralised shoots strike approximately 330°. The shoots are generally 100m to 150m in length along strike and range from 1m to 12m in thickness. Gold mineralisation and tenor is directly related to the presence of disseminated arsenopyrite and pyrrhotite, with the strongest mineralisation formed in dilational zones within the host shear. An alteration assemblage of biotite-sericite-quartz and carbonate exists accompanied by strong ductile shearing. Some evidence exists for the association of higher grades with flatter zones of the shear, implying a reverse sense of movement along the dip direction.

Drilling techniques - The drilling methods used to evaluate Wilsons are Reverse Circulation (RC) and Diamond (DD) drilling. The Wilsons resource database subset contains a total of 213 RC holes for 19,400m, 4 AC holes for 195m and 162 DD for 53,328m. Of these totals, Panoramic drilled 49 DD holes for 21,571.3m and 27 RC holes for 4,440m. The RC drilling was completed utilising 5 ¼ inch face sampling hammers. The DD was typically NQ2 (50mm) diameter core. The drill spacing was a nominal 40m by 40m grid pattern over the extent of the mineralisation. All Panoramic DD holes were oriented where possible using the “Ori-Mark” system.

Sampling techniques – all RC holes were sampled by collecting every 1m drill sample and splitting these down to an approximate 3kg assay sample by using either cone or riffle splitters. Diamond holes were typically NQ2 in diameter and were sampled by cutting the core in half over geologically logged intervals that typically ranged between 30cm and 1.2m.

Analysis method – the analytical technique used for virtually all Wilsons gold assays is Fire Assay (30g or 50g charge). QAQC was routinely completed during all sampling. The QAQC results indicate that the assays being used for the Wilsons UG Resource estimate are a fair representation of the material that has been sampled.

Estimation methodology – the greater Wilsons mineralisation is approximately 0.6km long and has a down dip extent of greater than 700m (open at depth). The deposit consists of a main lode containing three distinct shoots (Wilsons 1, 2 and 3) that vary between 1m and 12m thick. Wilsons 1 contains several footwall lodes.

Grade estimation of the Wilsons UG deposit was completed using Ordinary kriging (OK) in Surpac™ software. Variogram analysis and modelling was completed using Supervisor™ software. One metre down-hole composites were generated from the drill hole database and then tagged according to mineralised (Domain) wireframes generated at a 1g/t Au cut-off grade for low grade domains and 2g/t Au cut-off grade for high grade domains. A minimum 1m down-hole composite and wireframe width was maintained to try and represent a minimum selectable mining width assuming narrow vein underground mining techniques. The wireframe modelling conditions included, a minimum down hole mineralised width of 1m, internal down-hole dilution of up to 2m could be included if the entire intercept graded above 1 or 2g/t respectively. If dilution was greater than 2m then separate lodes were generated.

The coded composites were reviewed in Supervisor; top cut analysis was completed using disintegration analysis and measures of coefficient of variation. Domain grades were top cut. The cut dataset was then log transformed to review variograms and generate vario-models. The vario-models generated had a moderate nugget with range of maximum continuity along main axis of 234m, thereby confirming the strong geological continuity of the Wilsons UG mineralisation.

The block model was constructed with a parent cell size of 20m Y 5m X and 5m Z with sub-celling to 5m Y 1.25m X and 1.25m Z. All estimation was completed at the parent cell resolution. Data spacing is typically on 20m sections. Drill spacing within sections is typically 40m. The size of the search ellipse was based on the variography with 2 estimation passes used to populate cells. The first estimation pass utilised a minimum of 4 and maximum of 16 samples with 4 octants of the ellipse requiring data to allow estimation.

Cut-off grade – the Wilsons UG mineralisation wireframes were modelled on a lower grade cut-off of 1g/t Au and 2g/t Au for low-grade and high-grade domains, respectively. These values were determined by visual assessment of grade continuity in Surpac and by univariate gold statistics analysis of the various domains.

Modifying factors – the Wilsons UG Resource has been modelled under the assumption that it will be mined by narrow vein underground methods. This would typically involve some configuration of open stoping to extract down to 1 or 1.5m wide mineralisation. Mineralisation wireframes were constructed based on minimum thickness of 1m downhole intercepts to resolve smallest possible mining selectivity.

Classification criteria – The classification of the Resource in to Indicated (94%) and Inferred (6%) categories is based on strong geological confidence with 40m by 40m spaced RC and diamond drilling and the fact that the gold mineralisation is highly continuous over its strike length and is effectively strata-bound within the Wilsons Shear.

Prospects for eventual economic extraction – The strong continuity, moderate thickness and high grade nature of the Wilsons UG mineralisation, excellent ground conditions for underground mining and proximity to a future Gum Creek project processing facility suggests good potential for eventual economic extraction.

Competent Persons Statement

The information in this release that relates to the Swan OC, Swan UG, Swift UG, and Kingfisher Mineral Resources is based on information compiled by or reviewed by Dr Spero Carras (FAusIMM). Dr Carras is the Executive Director of Carras Mining Pty Ltd and was acting as a consultant to Legend Mining Ltd in 2006 and Panoramic Resources Ltd between 2012 and 2016. Dr Carras has sufficient experience that is 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 Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Carras consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

The information in this release that relates to the Heron South, Howards, Specimen Well, Shiraz and Toedter Mineral Resources is based on information compiled by or reviewed by Andrew Bewsher (AIG). Mr Bewsher is a full time employee of BM Geological Services and has sufficient experience that is 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 Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Bewsher consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

The information in this release that relates to the Wilsons Mineral Resource is based on information compiled by or reviewed by Ben Pollard (AIG, AusIMM). Mr Pollard is a full time employee of BM Geological Services and has sufficient experience that is 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 Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Pollard consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

About the Company

Panoramic Resources Limited (**ASX code: PAN**) is a Western Australian mining company formed in 2001 for the purpose of developing the Savannah Nickel Project in the East Kimberley. Panoramic successfully commissioned the $65 million Savannah Project in late 2004 and then in 2005 purchased and restarted the Lanfranchi Nickel Project, near Kambalda. In FY2014, the Company produced a record 22,256t contained nickel and produced 19,301t contained nickel in FY2015. The Lanfranchi and Savannah Projects were placed on care and maintenance in November 2015 and May 2016 respectively.

Following the successful development of the nickel projects, the Company diversified its resource base to include gold and platinum group metals (PGM). The Gold Division consists of the Gum Creek Gold Project located near Wiluna which the Company plans to partially spin out via an initial public offer (IPO) early in the December 2016 quarter. The PGM Division consists of the Panton Project, located 60km south of the Savannah Project and the Thunder Bay North Project in Northern Ontario, Canada, in which Rio Tinto is earning 70% by spending up to C$20 million over five years.

Panoramic has been a consistent dividend payer and has paid out a total of $114.3 million in fully franked dividends since 2008. At 30 June 2016, Panoramic had $29 million in liquid assets and no bank debt.

The Company's vision is to broaden its exploration and production base, with the aim of becoming a major, diversified mining company in the S&P/ASX 100 Index. The growth path will include developing existing resources, discovering new ore bodies, acquiring additional projects and is being led by an experienced exploration-to-production team with a proven track record.

For further information contact:
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Appendix 1

JORC Code 2012 Edition - Compliance Tables

Swan Open Pit, Underground and Swift Underground

Section 1 - Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • 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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• The Resources stated in this report covers both an Open Pit and Underground component. Reverse Circulation Drilling (RC) and Diamond Drilling (DD) were the techniques used. Drilling into the Open Pit was mostly by RC whereas the Underground was mostly DD. Drillholes used in this study range from holes drilled in 1984 to 2011. Mining has occurred in both the Open Pits and Underground and as a result the behavior of the ore is reasonably well known in a general sense. However locally the orebody can show high variability. • Sampling has involved 1m RC cuttings using riffle splitter in dry materials and a wedge splitter or rotary splitter in wet materials. Usually 2kg was retained. • DD has involved HQ and NQ. Some PQ holes have been drilled. • Sampling of diamond core has involved 1m sampling in early work to sampling over geological intervals (down to 0.1m) in more recent holes. The diamond core has generally been half cored with some holes split at whole core and some at three quarter core. Where it has been suspected that drillholes were drilled down dip, cross holes have been drilled. (This is particularly the case in Swift where drilling down dip had been suspected.) • Initially assaying utilized the Aqua Regia process but most assays used in this study have been by fire assay with an AAS finish using the site laboratory or off-site laboratories. A 50g charge has been used. After 2000, samples were assayed at the on-site laboratory at Gidgee using the Leachwell method. • Visible gold occurs.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• RC and DD were the only types of drilling used in the Resource estimate. • RC drilling up until 1989 used an Open Face hammer. After 1989 this was changed to a downhole enclosed hammer. Drilling using an Open Face hammer had the potential to smear data. An analysis of drillholes pre and post 1989 showed that only approximately 5,000 tonnes of the Indicated Resources stated may have been affected by smearing. Other holes are either in the Inferred category or are supported by later drilling.
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.	• Most drilling showed good recovery with the exception of some holes drilled in 1989. • All RC samples were thoroughly mixed in the riffling process. • There is no stated evidence of there being sample bias due to preferential sampling. • There is no relationship between sample recovery and grade.
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. • The total length and percentage of the relevant intersections logged.	• Drill core was photographed and appropriately logged. • Mining has been carried out and the metallurgical characteristics of the ore are well known. • Logging is qualitative in nature and was completed on all drillholes.
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.	• Sampling has involved 1m RC cuttings using riffle splitter in dry materials and a wedge splitter or rotary splitter in wet materials. Usually 2kg was retained. • DD has involved HQ and NQ. Some PQ holes have been drilled.

Criteria	JORC Code explanation	Commentary
	• 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.	• Sampling of diamond core has involved 1m sampling in early work to sampling over geological intervals (down to 0.1m) in more recent holes. The diamond core has generally been half cored with some holes split at whole core and some at three quarter core. Where it has been suspected that drillholes were drilled down dip, cross holes have been drilled. (This is particularly the case in Swift where drilling down dip had been suspected.) • Samples were submitted to off-site laboratories with check assays carried out in 1988. Further check assays were carried out in other years, however this data has not been analysed. There are indications of Standards and Blanks having been submitted prior to 2002 however there is insufficient information to complete an accurate analysis. There are lists of Standards and Blanks having been submitted post 2002 and an analysis of these shows good correlation. No evidence has been found in the mining process that there was suspected issues with assaying. An analysis of Duplicates showed that in general the precision of samples was adequate. • The analytic techniques were appropriate with approximately 30g of sample pulverized to 85% passing -200 mesh. Where coarse gold occurred screen fire assaying was carried out using a 105 micron sieve.
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. • 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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• Most of the assaying is by fire which is total. • Post 2002 there exists a complete list of Standards and Blanks. This data has been analysed and shows no bias. Prior to 2002 checks were carried out however that data has not been appraised due to difficulty. However there has been no evidence of any comment to the effect that mining showed that assays had been biased.
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.	• Some significant Intersections had been re-assayed and cross holes had been drilled into areas where drilling down dip had been suspected. • There have been no adjustments made to assay data.
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.	• Accurate surveying was carried out of drillhole collars. Prior to 2002 the method of down hole survey is not recorded. There is no evidence to the effect that mining found drillholes in incorrect positions however in 2000 some RC holes > 75 degrees tended to lift and holes < 75 degrees tended to drop. There is a full description of down hole survey methods post 2002.
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 is generally on a 25m grid spacing but there are large areas of 12.5m drilling. This drilling together with the fact that the orebody has been mined in both Open Pit and Underground makes it appropriate for the classification of Resource reporting. • Samples have been composited to provide Intersections which reflect Open Pit and Underground mining.
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.	• Drillholes have been drilled both to the East and to the West to allow for the orebody dip. • Where drilling has been suspected down dip, cross holes have been available to assess this.
Sample security	• The measures taken to ensure sample security.	• There is no evidence to suggest inadequate sample security.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• An Audit was carried out in 2003 by Resource Evaluations Pty Ltd. The issue raised was that half core Kempe Diamond was used for Underground sample assaying and may have been too small. Underground drilling has been used in this work.

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.	• The database used in this work was obtained by the Competent Person's site visit in December 2004 and has been kept at the Competent Person's Perth office since that time. The data was validated by plotting on plans and sections and having the complete involvement of Legend's previous Geologist in all interpretive work.
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.	• The Competent Person visited the site in 2004 and was responsible for the Closure Report in 2005. This involved time spent underground looking at Lodes which were being mined at the time.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• The Gidgee orebodies have been mined over a long period of time and are well understood in general, however locally there can be large discrepancies due to the nature of the controlling structures. Independent Geological studies have been carried out by SRK and Fractal Graphics. Locally, gold grades can exhibit very high variability. • There is only minimal scope for alternative Lode interpretations. However there is short scale variability within Lodes. • Known geology has been used as the basis of the interpretation. • Drilling is relatively close (up to 12.5m) and together with the understanding from mining a very reasonable interpretation exists.
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 Open Pit Resource is constrained to the optimized Aus $2,000 pit and covers an area of approximately 1.5km long, 1.1km wide and 200m deep. • The Underground Resource is centered around existing workings and covers an area of approximately 1.1km long, 800m wide and is up to 300m below the optimized Aus $2,000 pit.

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 (eg sulphur for acid mine drainage characterisation).
	• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
	• Any assumptions behind modelling of selective mining units.
	• Any assumptions about correlation between variables.
	• Description of how the geological interpretation was used to control the resource estimates.
	• Discussion of basis for using or not using grade cutting or capping.
	• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.
		• Intersection Selection was carried out using the following parameters for Open Pit:
		  • Cut-off Grade: 0.7g/t
		  • Minimum Mining Width: 4m Down hole
		  • Internal Dilution: 2m Down hole
		  • Edge Dilution: 1m Either Side Down hole
		• Intersection Selection was then used to create wireframes.
		• Block Modelling was carried out for Resources using the following parameters:
		  • Block Size: 2.5m North South, 2m East West, 1m RL
		  • Block Discretisation: 1 East, 2 North, 1 RL
		  • Search Type: Elliptical Octant
		  • Maximum Number of Samples: 64
		  • Interpolation: Inverse Distance Cubed
		  • Search Size: 60m Down dip, 30m Along strike, 3m Across strike [These were obtained from historical variography.] For reporting purposes material within the wireframes contains the reported Resource.
		  • Note: Reporting is not carried out on block cut-off grades but within wireframed shapes which are at least 2,000 tonnes in size.
		• Intersection Selection was carried out using the following parameters for Underground:
		  • Cut-off Grade: 2.0g/t
		  • Minimum Mining Width: 3m Down hole
		• For the Underground, the average of the samples within the wireframe were used to give each wireframe a value.
		• The following high grade cuts have been used after examination of the sampling distributions:
		  o Premium:
		    ▪ Oxide: 10g/t
		    ▪ Transition: 12g/t
		    ▪ Fresh: 60g/t

Criteria	JORC Code explanation	Commentary
		○ Bitter: ▪ Oxide: 10g/t ▪ Transition: 20g/t ▪ Fresh: 200g/t ○ Swift: ▪ Oxide: 20g/t ▪ Transition: 30g/t ▪ Fresh: 30g/t Note: Swan comprises Premium and Bitter
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• Tonnages are estimated on a dry basis.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• For Open Pit a cut-off grade of 0.7g/t has been used based on milling cost. • The cut-off grade for Underground Resources is a marginal cut-off grade based on mining costs, overheads and milling. It does not include the cost of development or refurbishment if required. This results in a higher cut-off grade of 6g/t for material distal to present Underground workings and 4g/t for wireframes close to existing infrastructure.
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.	• Conventional Open Pit mining on 5m benches is applicable to the deposits. Mining can be selective and grade control via blasthole sampling is an applicable method. Geotechnical work has been undertaken to determine suitable slope angles and berm and batter designs. The existing excavations provide an insight into suitability of previous designs. There are no spatial constraints on Open Pit footprints (i.e. existing infrastructure, tenement boundaries and/or heritage values)
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.	• Conventional gravity/CIL gold extraction and recovery is applicable to these deposits. Testwork has been undertaken to determine and optimise grind size, recovery and reagent use. There is a substantial water supply of good quality readily available. Historical records of plant performance treating similar ores are available which support the metallurgical testwork.
Environmen-tal 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.	• Site investigation of the existing tailings storage facility revealed no deleterious materials from treating similar ores in the past. A Mining Proposal has been granted by DMP in 2014 for mining and processing Swift ore. There are no known issues which would affect this approval being extended to include Swan ore.
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.	• Based on historic mining the following bulk densities have been used: • Fill: 1.4 tonnes per cubic metre • Oxide: 1.8 tonnes per cubic metre • Transition: 2.3 tonnes per cubic metre • Fresh: 2.8 tonnes per cubic metre
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all	• In general for the Open Pit, the shapes are extended a maximum of 15m along strike from an Intersection and 20m down dip. Intersections that were able to be wireframed into a shape that was

Criteria	JORC Code explanation	Commentary
	relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	on 2 or more sections as well as the cross structures were classified as Indicated. If singular Intersections were part of a structure over more than 1 section but it was too difficult to produce a wireframe then a cylinder was drawn around these areas which were also classified as Indicated. All other Intersections, as well as blocks more than 15m away from a drillhole were then classified as Inferred. • For the Underground, a bounding volume was used to define an Indicated category and an Inferred category of material. The Indicated boundary enveloped areas where there were either underground workings or a higher drilling density. Material outside of this envelope was defined as Inferred. The Inferred carries a higher cut off grade due to it being further from infrastructure, thus requiring it to carry a higher capital cost. This was used only as a guide in selecting Indicated material as distance from existing workings was also used.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• The only audits and reviews of these estimates has been by Carras Mining Pty Ltd in 2004, 2006, 2007 and 2012.
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.	• In an overall sense, the estimates should be accurate. However, locally estimates can vary due to the complex nature of the geology. Geological interpretation at the local scale remains the biggest source of potential error. However the previous mining of both Open Pit and Underground has resulted in reasonable understanding of geological control. • Local estimates can be difficult to quantify. • Overall the estimates should be reasonable if taken over large tonnages. This is typical of all Eastern Goldfields gold deposits.

Heron South

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • 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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• The deposit was sampled using Reverse Circulation (RC), Aircore (AC) and Diamond drilling (DD) techniques. A total of 277 RC holes for a total of 23,197m, 74 AC holes for 5,536m and 3 diamond holes for 564.5m. Thirty six of the RC & 47 of the aircore holes were drilled by PAN • The drill spacing was nominally 25m * 10m grid spacing over the extent of the mineralisation. • RC holes were sampled by collecting 1m samples and splitting these down using a (cone and riffle splitter) to approximately 3kg sample sizes. • Diamond holes were typically NQ in diameter and were sampled by cutting the core in half over geologically logged intervals that typically ranged between 30cm and 1.2m. • There is limited information recorded on the historical RC and RAB sampling methods. The diamond core was halved with a diamond saw and generally sampled to 1m intervals with shorter samples collected at geological contacts as is best practice. For the RC, RAB and AC drilling conducted by Abelle Limited over the Gidgee tenure samples were submitted to Analabs in Perth for analysis for gold only by AR/AAS. Initially samples were assayed at the Gidgee site laboratory by 200gm LeachWell/ AAS to a detection limit of 0.01 ppm Au. However this laboratory is not equipped to handle low level gold detection, and later samples were assayed by 25gm aqua-regia digest followed by DIBK extraction and AAS (carbon rod) finish, to a detection limit of 1ppb Au, at Analabs laboratory in Perth.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• The drilling methods used on this deposit are RC drilling Aircore drilling and DD drilling. The RC drilling was completed utilizing a 5 ¼ inch face sampling hammer. • The Diamond drilling was typically NQ (47.6mm) diameter core
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.	• RC sample recoveries were monitored by recording visual estimates of the sample bags prior to sampling. Typical recoveries for RC were >90% • Core recovery is noted during drilling process and geological logging process as a percentage recovered vs. expected drill length. Core was reconstructed into continuous runs on a length of angle iron to enable accurate geological logging and estimation of core recovery. • No apparent relationships were noted in relation to sample recovery and grade.
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. • The total length and percentage of the relevant intersections logged.	• All drill holes were geologically logged. • Both chip and core samples have been logged in sufficient detail to support geological confidence in Mineral Resource Estimates. • Logging detailed lithology, alteration, mineralisation, weathering, oxidation, veining and structural features if available.
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 maximize representivity of samples. • Measures taken to ensure that the sampling is	• All diamond core was half core sampled using an electric diamond core saw. The minimum sample length was 0.3m. • For the RC drilling conducted by Abelle Limited over the Gidgee tenure in the early 2000's samples were riffle split for each metre drilled. One-metre samples from the quartz-rich altered zones were submitted to Analabs in Perth for analysis. Four-metre speared composite samples were submitted for other parts of the holes. One metre samples were submitted from zones where 4-metre composites return elevated values. The early sampling methods for RAB and AC drilling by Abele included the collection of samples for each metre drilled. These were laid in rows on the ground. Samples were spear-composited over four metres down hole for assay and again resubmitted if anomalous values were returned.

Criteria	JORC Code explanation	Commentary
	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.	• Sample preparation process for all samples submitted followed industry standards, including oven drying sample for a minimum of 8 hours, crushing and pulverizing the sample to 85% passing 75 microns. • Quality control procedures included the insertion of standards, blanks to monitor sampling and analytical processes. • The sample sizes used are those typically used throughout the goldfields and are considered appropriate to this style of deposit.
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. • 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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	• The analytical technique used prior to 2011 was AR/AAS • The analytical technique used post 2011 was fire assay (30g charge) • All analytical data generated by direct laboratory assaying. No field estimation devices were employed. • QAQC has been routinely completed during all sampling conducted by PAN. The QAQC reports prepared by Panoramic were reviewed by the author and indicate that the assays being used in the estimate are a fair representation of the material that has been sampled. The Panoramic QAQC process was to insert 1 Certified Reference Material (CRM) or blank for every 20 RC samples. • For RC drilling, field duplicates were inserted at a rate of 1 in 25 samples. Coarse crush laboratory split duplicates were also inserted at a rate of 1 in 20 samples for RC drilling. • No historical QAQC data was available for review.
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.	• The deposit is very continuous in terms of mineralisation and grade. The continuity and consistency of the grade intercepts down dip and along strike give strong confidence in the verification of the grade and style of deposit. • No twin holes were completed. The RC drill spacing in the center of the historically mined pit was 8m * 5m spacing and provided significant confidence in sample intercepts • Logging was completed in excel templates and loaded into Panoramic's SQL database for validation. Sections were then generated and visual validation was completed to ensure integrity of the data. • No adjustments were made to assay data except for replacing negatives with half detection limit numerical values.
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.	• All recent (2011/2012) drillhole set-outs, pickups and collar alignments were completed by surveyors using DGPS equipment with a horizontal accuracy of ±10 mm and a vertical accuracy of ±15 mm. Down hole surveys were routinely performed every 30m using a range of electronic multi-shot (EMS) tool. Panoramic routinely performed gyroscopic check surveys of its drill holes as verification on the EMS surveys. The gyroscopic data confirmed the reliability of the EMS surveys and demonstrated drill hole deviation was not a significant issue at Heron South or at any other Gum Creek prospect drilled by Panoramic. • The grid system used in the resource estimate is MGA_GDA94 Zone 50. • A surface topography DTM was acquired with the purchase of the Project from Apex. The origin of the DTM is unclear, but accurately surveyed drill hole collar RLs agree closely with the DTM.
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.	• The drilling density is on a nominal 25m by 10m spacing through the majority of the deposit. This spacing is sufficient to give strong geological and mineralogical confidence in the style of the deposit being estimated. • Sample compositing to 1m intervals has been completed to try and represent selective mining units that would be typical in an open pit environment with stand bench height of 2.5m
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.	• All drilling has been completed roughly perpendicular to the main strike of the deposit geometry and at angle to intercept mineralisation as close to perpendicular as possible. • No sampling bias is apparent from the direction of drilling.
Sample security	• The measures taken to ensure sample security.	• Recent samples were kept secure on site until dispatched direct to the ALS laboratory in Perth.

Criteria	JORC Code explanation	Commentary
		• There is no documentation on sample security prior to 2010.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• All recent sampling techniques are accepted as industry standards. No audits or reviews have been undertaken. • Documentation on sampling methodology prior to 2010 confirms industry accepted practices.

Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	• Data is collected in excel templates and imported into Panoramic's SQL database using Datashed import and validation software to ensure appropriate values are being imported into correct fields. All geological and assay information is printed on hard copy plans and visually validated against original logs and assay results to ensure the digital copy agrees with the original format. • Historical drill data was compared with recent drilling to confirm continuity and orientation of mineralisation. Visual checks on the drillhole data including collar positions, hole trace azimuth and dip projection were completed to ensure data appeared logical and sensible. • Data validation is completed internally in SQL by setting allowable and expected values. Automated queries are run as the data is imported to ensure it meets specified criteria.
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.	• The CP who completed the resource estimate visited the site previously, though not specifically for this round of work. Panoramic staff managed the 2011/12 drilling program and were integral in the development of the geological model and mineralisation interpretations.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• There is high confidence in the geological understanding of the deposit. There is a strong relationship between grade and logged alteration. The gold mineralisation is of a consistent grade. Top cuts were applied to composites to reduce the effect of outlier grades • The data used for the resource estimate was from RC and diamond drilling. Raw assays were composited to 1m to provide equal sample weights. Short composites were normalized to 1m via accumulation with grade value. • No alternative interpretations were considered. • The geological controls relate strongly with the mineralisation interpretation. The nature of the ore fluids of Archean gold deposits have been fairly well constrained, they are usually deep-seated in origin and may include metamorphic and distal magmatic fluids. The gold is generally transported by reduced sulphur complexes and deposited by sulphidation reactions in the wall rock. • The most obvious control on mineralisation at Heron South is the upward moving fluids channelled along conduits such the large NNW trending shear that hosts the primary ore surface.
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 mineralised shoot is approximately 650m long, 200m deep and averages 10 - 15 thick. It is interpreted to be striking approximately 354°, dips steeply to the east at around 80° and plunges to the south at approximately 7°.
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.	• Grade estimation of the Heron South deposit was completed using Ordinary kriging (OK) in Surpac software. Variogram analysis and modeling was completed using supervisor software. 1m composites were generated from the drillhole database and then tagged according to mineralised wireframes generated at a 0.5g/t lower gold grade. In some areas lower grades were included if it honoured the overall continuity of the interpreted mineralisation. Six separate domains were recognised and delineated for the Heron South resource • The coded composites were reviewed in supervisor; top cut analysis was completed using disintegration analysis and use of coefficient of variation. Domain grades were top cut. The cut dataset was then log transformed to review variograms and generate variomodels. Variomodels were generated for lode 1 and applied to the other 5

Criteria	JORC Code explanation	Commentary
		domains which had consistent orientation with lode 1. The variomodel had a moderate nugget with range of maximum continuity along main axis of 165m.
	• The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	• Historical mining records for the Heron South pit were not available to correlate with the model.
	• The assumptions made regarding recovery of by-products.	• No assumptions have been made about gold grade recovery or the recovery of related by-products.
	• Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	• Other elements including Cu and As have been estimated where data was present. Only recent 2013 drilling has results relating to these elements and as such the estimates of the elements are considered to be of low confidence.
	• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	• The block model was constructed with a parent cell size of 12.5m Y 4m X and 2.5m Z with sub-celling to 6.25m Y 2m X and 2.5m Z. All estimation is completed at the parent cell resolution. Data spacing is typically on 20m sections. Drill spacing within sections is typically 10m. The size of the search ellipse was based on the variography with 2 estimation passes used to populate cells. The first estimation pass utilised a minimum of 4 samples and maximum of 24 samples with 4 octants of the ellipse requiring data to allow estimation.
	• Any assumptions behind modelling of selective mining units.	• The composites were generated at 1m down hole and the ore wireframes were maintained at a minimum width of 2m to try and represent a minimum selectable size assuming open pit mining operations.
	• Any assumptions about correlation between variables.	• No correlations between grade variables have been assumed.
	• Description of how the geological interpretation was used to control the resource estimates.	• The most obvious control on mineralisation at Heron South is the upward moving fluids channelled along conduits such the large NNW trending shear that hosts the primary ore surface.
	• Discussion of basis for using or not using grade cutting or capping.	• Top cut analysis was completed using disintegration analysis and use of coefficient of variation. Estimates were generated using cut and uncut grades to demonstrate the influence of outliers.
	• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• Validation of the resource estimate was completed by visual validation of block grades versus drill hole assays in sectional view on computer. Line graphs were generated to show comparison between composite input grades and output block grades over 20m RL intervals through the entire deposit to ensure the composite data was being accurately reflected in the model. The model was also compared with historical estimate to ensure report figures were reasonable.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• The tonnages are reported as dry tonnes. Sample preparation process involves drying the sample for 8hrs prior to analysis.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The mineralisation wireframes were modeled on a gold lower grade cutoff of 0.5 g/t. These values were determined by visual assessment of grade continuity in Surpac. • At the current gold price of $1700/ounce, gold grades in excess of 1g/t are economically extractable via open pit methods. • 0.5g/t-1.0g/t gold material is defined as economically viable at current price and will be stockpiled separately on surface to determine the most economical processing options based on current costs and gold prices at that point in time. • A depth constraint of 200 vertical meters has been applied to open pit extractable ounces.
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 Heron South resource has been modeled under the assumption that it will be mined by Open Pit mining methods. This would involve 2m minimum thickness lodes mined over 5m benches and 2.5 flitches. Mineralisation wireframes were constructed based on minimum thickness of 2m downhole intercepts to resolve smallest possible open pit mining selectivity. • Reporting of tonnes and grade has been based on minimum mining thickness shapes and also economically viable cutoff grades.
Metallurgical factors or	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part	• Assumptions based on typical metallurgical recoveries have not been made in respect to the generation of this Mineral Resource estimate.

Criteria	JORC Code explanation	Commentary
assumptions	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.	• Metallurgical assumptions (based on test-work results) will be applied during the mine planning and conversion of resource to ore reserve stage of the Project BFS.
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.	• No material environmental concerns have been identified. Heron South is located on a brownfields site with existing environmental disturbance.
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.	• Bulk density (BD) values for the Heron South estimation have been assumed based on typical values applied in neighboring deposits. • The host rock type for mineralisation and surrounding waste rock is basalt which is non-porous and void-space porosity is not considered to be of relevance to the measurements. • Fresh rock density was assigned as 2.92g/cm³, oxide and transitional materials were assigned values of 2.00g/cm³ and 2.30g/cm³ respectively.
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• The classification of the resource has been based on strong geological confidence with 20m*10m spaced RC and diamond drilling. Gold mineralisation is highly continuous over its strike length and is effectively strata bound. • It is the author's opinion that all appropriate data and factors have been addressed and taken into account for this estimate. • The mineral resource reflects the competent person's view of the deposit
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• This work has been peer reviewed by BMGS personnel other than the author. The work has also been reviewed by Panoramic staff
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 resource classification is based on standard practices and guidelines as prescribed in JORC 2012 • The resource estimate relates to a global estimate of tonnes and grade. • The resource estimate has not been compared with historical mining figures as these are not available.

Howards

Section 1 - Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • 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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• The Howards deposit has been extensively sampled using Reverse Circulation (RC) and Diamond drilling (DD) techniques. The Howards (Gidgee Gold Project) resource database subset contains 237 RC & DD holes for a total of 19,730m. Of this total 75 RC & DD holes totalling 11,086m were drilled by Panoramic as part of a Project feasibility study. In addition the database contains 329 historical RAB holes (totalling 3,173m which have not been used for resource estimation. • The drill spacing is typically 20m * 30m and 40m * 40m grid spacing over the extent of the mineralisation. • RC holes were sampled by collecting 1m samples and splitting these down to a ~3kg assay sample using either automated on-board rig cone splitters or manual riffle splitters. • Diamond holes were either NQ2 or HQ size and were sampled by cutting the core in half to honour geologically logged intervals between 30cm and 1m in length. • All (7,056) recent Panoramic resource assay samples were submitted to ALS Laboratories in Perth for gold analysis by FA30 (Fire Assay) technique. Of the 5,261 historical RC & DD gold assays in the Howards database, 3,108 (59%) have an un-known technique. 2,565 of these assays are described as "unknown digest, AAS finish" and are believed to be Fire Assay results. In addition, results for 6,423 (52% of the entire analytical database) QAQC samples are recorded in the database.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• The drilling methods use to evaluate the deposit are RC and DD drilling. The RC drilling was typically completed utilising a 5 ¼ inch hammer. Face sampling RC hammers were used by Panoramic. The DD drilling was either NQ/NQ2 (47.6mm /50mm) or HQ (63.5mm) diameter core. • HQ size core was typically used for geotechnical holes cored from surface by Panoramic.
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.	• RC sample recovery was monitored by Panoramic by recording visual estimates of the sampling bags. Typical recoveries for RC were greater than 90%. • Core recovery is noted during the drilling and geological logging processes as a percentage recovered vs. expected drill length. Core was reconstructed into continuous runs on lengths of angle iron to enable accurate geological logging and estimation of core recovery. Recovery was typically 100%. • No apparent relationships were noted between sample recovery and grade.
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. • The total length and percentage of the relevant intersections logged.	• All drill holes in the Howards resource database have been geologically logged. • Both chip and core samples in recent Panoramic drill holes have been logged using geological legends at detail to support geological confidence in Mineral Resource estimates. • Logging details lithology, weathering, oxidation, veining, mineralisation and structural features where noted in drill core. • All mineralised intersections and associated samples have been logged in full.
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.	• All diamond core was half core sampled using an electric diamond core saw. • All RC samples were collected in 1m intervals through the drill rig cyclone system and reduced to a ~3kg assay sample by either automated on-board cone splitters or manually by riffle splitting. • The sample preparation process for all samples submitted for analysis followed industry standards, including oven drying for a minimum of 8 hours, crushing and pulverising to 85% passing 75 microns.

Criteria	JORC Code explanation	Commentary
	• 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.	• Quality control procedures included the insertion of standards, blanks and field duplicates to monitor sampling and analytical processes. In addition ALS Laboratories in Perth conducted their own internal QAQC system. • The sample sizes used are industry accepted standards used extensively throughout the goldfields and are appropriate to the style of deposit.
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. • 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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• The analytical technique used is Fire Assay (30g charge). Where other element determinations were made it was generally by 4 acid digest and either ICP OES or AAS technique. • No other geophysical or analytical tools have been used to estimate grade. • QAQC has been routinely completed during all sampling. The QAQC results indicate the assays being used for resource estimation are a fair representation of the material being sampled. The Panoramic QAQC process was to insert 1 Certified Reference Material (CRM) or blank for every 20 RC samples and between 1 in 15 and 1 in 20 for core samples. The CRM quartz wash blank was also inserted at the beginning of each core assay batch and where possible immediately prior to the mineralised intervals. • Quarter core field duplicates were submitted at a rate of 1 in 20 samples. For RC drilling, field duplicates were inserted at a rate of 1 in 25 samples. Coarse crush laboratory split duplicates were also inserted at the rate of 1 in 20 samples for both RC and DD drilling.
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.	• The deposit is continuous in terms of mineralisation and grade. The continuity and consistency of the grade intercepts down dip and along strike provide strong confidence in the verification of the grade and style of deposit. • No twin holes were completed. Verification holes were completed by Panoramic to test continuity of mineralisation in selected sections. The drilling confirmed expected geological and mineralogical interpretations. • Logging was completed in logging code protected excel templates and loaded into Panoramic's SQL database for validation. Sections were then generated and visual validation was completed to ensure integrity of the data. • No adjustments were made to assay data except for replacing negative (below detection reported results) with half detection limit numerical values.
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.	• All drill hole set-outs, pickups and collar alignments were undertaken by TEAMS Surveying using DGPS equipment with a horizontal accuracy of ±10 mm and a vertical accuracy of ±15 mm. Down-hole surveys were routinely performed every 30m using a range of single shot, electronic multi-shot and north seeking gyro tools. Panoramic validated all down hole survey data to correct anomalous readings due to magnetic interference. Recent gyroscopic surveys undertaken by Panoramic confirmed the reliability of earlier single and multi-shot readings. • The grid system used in the resource estimate is MGA_GDA94 Zone 50. All historic drilling positions were originally located on the Howards truncated AMG grid system that was constructed by Dalrymple in 1989. Panoramic has adopted MGA94 as the survey system for the Howards Project. The Howards database contains both sets of coordinates, but for the purpose of this estimate the MGA94 grid coordinates have been used. • Conversion from local grid to AMG AGD84 Zone 50 is calculated by applying truncated factor to local coords: • E: +700000, N: +6900000 • The Howards topographic layer was created by Panoramic using a 2006 Landgate aerial survey and modified by DGPS pickups of historical and current drill-hole collars.
Data spacing	• Data spacing for reporting of Exploration Results.	• The drilling density is on a nominal 20m by 30m and then 40m by

Criteria	JORC Code explanation	Commentary
and distribution	• 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.	40m spacing through the majority of the deposit. This spacing is sufficient to provide strong geological and mineralogical confidence in the style of the deposit being estimated. • Outside of the mineralised zones and through RC pre-collars, 3 metre composite spear samples were collected and submitted for assay. If any of these returned anomalous gold values (> 0.2g/t) then the original 1 metre (~3kg) cone split drill-rig samples were submitted from the respective composites. All cored intervals selected for analysis were cut and sampled accordingly and sent directly to the laboratory. No core sample compositing was undertaken.
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.	• All drilling has been completed roughly perpendicular to the main strike of the deposit geometry and at angle to intercept mineralisation as close to perpendicular as possible. • No sampling bias is apparent from the direction of drilling.
Sample security	• The measures taken to ensure sample security.	• Samples were kept secure on site until dispatched direct to the ALS laboratory in Perth.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audits or review of the Panoramic sampling procedures and protocols has been completed.

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.	• Logging was completed in logging code protected MS Excel templates and loaded into Panoramic's SQL database, with a "Datashed" software frontend, for validation and storage. • Geological and assay information was printed on hard copy plans and visually validated against original logs and assay results to ensure the digital copy agrees with the original format. • Data validation was completed internally in SQL Server by setting allowable and expected values. Automated queries are run as the data is imported to ensure it meets specified criteria. • A subset of the SQL database, restricting the data to the Howards Resource area, was exported into MS Access database. Additional data checks were run to ensure appropriate data robustness for the Resource Estimation.
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.	• No site visits were completed by BMGS. LNM Panoramic staff managed the 2013 drill program and were integral in the development of mineralisation interpretations used in the Ordinary Kriged model. • Site visits were not required as the documented procedures on the recent drilling were deemed appropriate for the style of deposit and the work was undertaken to industry accepted standards.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and	• There is a high degree of confidence in the geological interpretation of the Howards deposit. The deposit is confined to a basalt hosted shear, which has good continuity at a 0.3g/t cut off. The uncut coefficient of variation (COV) of the dataset was 4.31, however this was heavily skewed by the 6 extreme values. By top-cutting the dataset a reduction of 1.39 to the COV was realised, which suggests the domains are acceptable. • The data used for the resource estimate was from RC and diamond drilling. Raw assays, typically 1m were composited to 2m to provide equal sample weights and reduce grade variance. • Two separate interpretations were undertaken which were used for two differing estimation techniques. An interpretation of 0.3g/t continuity was created for the OK estimate with a slightly broader approach at 0.2g/t (including larger zones of internal dilution) for the MIK estimate. • The geological and mineralisation models are based on detailed geological logging which confirms the concentration of Au mineralisation within a broad basalt hosted shear zone. • With 14 diamond holes in the deposit, combined with detailed geological logs on all other hole types, it is thought that there is sufficient detail to support the geological model (framework). • The geological and grade continuity is typical of most gold deposits

Criteria	JORC Code explanation	Commentary
	geology.	where the continuity at a lower grade cut-off is far greater than the higher grade thresholds. There is a presence of localised higher grade zones within the mineralised domains. The continuity of these high grade zones vary from good continuity in the heart of the deposit and dissipate on the margins of the deposit.
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 Howards mineralised domain is approximately 780m long and has a down dip extent of 200m and is open at depth. The deposit consists of a main lode that varies between 2m and 30m thick with numerous parallel & sub-parallel lodes at various stages along the length of the deposit.
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.	• Grade estimation of Howards deposit was completed using two separate methods; (1) Ordinary kriging (OK) in Surpac software and (2) Multiple Indicator Kriging (MIK) using GS3 software. Variogram analysis and modelling for the OK estimate was completed using Supervisor software. Two meter composites were generated from the drillhole database and then tagged to mineralised wireframes generated at a 0.3g/t gold grade cut-off. The wireframe modelling conditions included, a minimum downhole width of 2 meters of mineralisation and internal dilution of up to 3m downhole could be included if the entire intercept graded above 0.3 g/t. If dilution was greater than 3m then separate lodes were generated if geological/grade continuity was permissible (typically used trouser legs on the fringes of the main lode). • The data was reviewed through disintegration analysis and reviewing the raw statistics to determine whether applying a top-cut was necessary. It was decided a top-cut was required to reduce the high CV and limit the effect of these higher grades on the estimate. Only the OK estimate was run using a top-cut, with a top-cut of 10g/t being applied (removing the top 6 outliers from the dataset). The dataset was then normal scores transformed to generate variogram models. The variogram models had moderate to low nuggets with a range of maximum continuity along the main axis of 32m. Separate variograms were also generated for the MIK estimate, based on the different ranked grade thresholds; metal variograms were also generated.
	• The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	• A previous estimate of the Howards deposit was completed in 2012. This was completed by BMGS on behalf of Panoramic Resources and was not classed as being 2012 JORC compliant. The 2012 estimate was created using a slightly higher cut-off envelope at 0.4g/t Au and is not therefore directly comparable with the 2013 estimates. Comparisons were made between two recent estimates using different estimation methods. The comparisons demonstrate that the metal accumulation between models is generally comparable with a slight fall in the MIK estimate. This is most likely a result of the broader domain boundaries used in the MIK estimate. The two new estimates are comparable at a 0.6 & 0.7g/t Au cut off.
	• The assumptions made regarding recovery of by-products.	• No assumptions have been made about gold grade recovery or the recovery of related by products. Recent metallurgical test work had been performed as part of a feasibility study of the greater Gidgee Gold Project being undertaken by Panoramic. No recovery issues have been identified.
	• Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	• A review of deleterious elements or other non-grade variables was undertaken. Out of the available 12,271 raw samples 9,833 had been analysed for Copper (Cu). A correlation study was undertaken to determine if there was any correlation between analysed elements, there appeared to be no relationship between Cu and Au. Given that 80% of the dataset has Cu values, it was decided to estimate Cu. The Cu was only estimated in the OK model using id2 estimation methods with similar search criteria as used for the Au.
	• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	• The OK block model was constructed with a parent cell size of 20m Y 20m X and 10m Z with subcelling to 5m Y 5m X and 1.25m Z. All estimations completed at the parent cell resolution. Data spacing is typically on 20m sections by northing and 10m on section by easting. The size of the initial search ellipse was based on the variography with a cascading five pass estimation used to populate cells. The first estimation pass utilized a minimum of 12 and maximum of 32 samples, using a major distant search of 35m without octant constraints. The search criteria were then changed for the remaining

Criteria	JORC Code explanation	Commentary
	• 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.	estimation passes. • The composites were generated at 2m downhole and the ore wireframes were maintained at a minimum width of 2m downhole to simulate a minimum mining width, assuming an open pit mining operation using 120 tonne excavators. • No correlations between grade variables have been assumed. • The geology of the deposit is classified as an Archean orogenic shear hosted deposit. The mineralisation is hosted within a sheared basalt unit. • Validation of the Resource estimate was completed by onscreen visual validation of block grades vs. drill hole assays in sectional view. Line graphs were also generated to show comparison between composite input grades and block output grades over 50m intervals in the northing direction and 20m intervals in the easting direction throughout the entire deposit to ensure the composite data was accurately reflected in the model. The OK model was also compared to the MIK estimate to ensure the estimates were sensible.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• The tonnages are reported as dry tonnes. Sample preparation process involved drying the samples for 8hrs prior to analysis.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The mineralisation wireframes for the OK estimate were modelled on a gold grade cut off of 0.3g/t. This value was determined by visual assessment of grade continuity. The mineralised envelope adopted for the MIK estimate was slightly broader with a continuity of 0.2g/t Au.
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 Howards deposit has been modelled under the assumption that it will be mined by conventional open pit mining methods, utilising excavators and trucks. This would typically entail 5m bench heights with 2.5m flitches and the use of 120 tonne excavators with a bucket width of approximate 2m to mine the majority of the pit. The potential then exists to engage a smaller 30 tonne excavator to mine thinner higher-grade ore zones in order to maximise head grade and reduce dilution. Mineralisation wireframes were constructed to a minimum downhole length of 2m to replicate the smallest possible mining selectivity.
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.	• No metallurgical assumptions have been made in respect to the generation of the estimate however recent metallurgical test work had been performed as part of a feasibility study of the greater Gidgee Gold Project being undertaken by Panoramic. This work has shown that recoveries greater than 90% Au can be achieved using conventional CIL extraction methods.
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 current data available doesn't suggest there are any high-level environmental risks with mined waste by-products. If mining were to commence all statutory requirements would be implemented to comply with waste by-product management.
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	• Six hundred and fifty nine density determinations were calculated for Howards, based on 5 diamond holes drilled as part of the greater Gidgee Gold Project Feasibility Study. The determination methodology was by water immersion technique. • The host rock type for mineralisation and surrounding mafic material is non-porous and void space porosity is not considered to be of

Criteria	JORC Code explanation	Commentary
	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.	relevance to the measurements. • Given the localised spatial distribution of the density measurements, average densities were assigned to the various domains within both models (OK & MIK). The values applied were: Oxide - 2.0, Transitional - 2.4 and Fresh - 2.8.
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• The classification of the OK resource has been weighted by strong geological continuity within the Indicated resource (>80% of the resource) with weaker continuity observed in the Inferred resource (<20% of the resource). The classification of the MIK estimate is heavily influenced by the search parameters applied. A proportion of the northern extent of Howards is densely drilled 5m*10m spaced RC (at the surface expression). The structural understanding of the Howards deposit is enhanced by the 14 diamond drill holes within the deposit. • The remainder of the deposit is drilled at 20m*20m, cascading to 20m*40m spaced drilling. The gold mineralisation is highly continuous over a 780m strike length and is structurally (shear controlled) bounded. The bulk of the resource has been classified as Indicated (>80%) with the remaining amount (<20%) inferred and unclassified. • The Mineral Resource estimate reflects 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 of the Mineral Resource estimate have been completed.
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 resource classification is based on standard practices and guidelines as prescribed in the 2012 JORC Code. • The Resource estimate relates to a global estimate of tonnes and grade. • No mining currently exists at Howards, therefore there is no production data available for comparison.

Specimen Well

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • 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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• The deposit was sampled using Reverse Circulation (RC), Aircore (AC) and Rotary Airblast (RAB) techniques. A total of 73 RC holes for a total of 5,698m, 40 AC holes for 2317m and 980 RAB holes for 32,885m. Five of the RC holes were drilled by PAN. • The drill spacing was nominally 25m * 12m grid spacing over the extent of the mineralisation. • RC holes were sampled by collecting one-metre samples from the quartz-rich altered zones. Four-metre speared composite samples were submitted for other parts of the holes. One metre samples were submitted from zones where four-metre composites returned elevated values. • The early sampling methods for RAB and AC drilling by Abelle included the collection of samples for each metre drilled. These were laid in rows on the ground. Samples were spear-composited over four metres down hole for assay and again resubmitted if anomalous values were returned. • All samples were submitted to Analabs in Perth for analysis. .
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• The drilling methods used on this deposit are RC drilling and AC and RAB drilling. The RC drilling was completed utilizing a 5 ¼ inch face sampling hammer.
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.	• RC sample recoveries are not available for historical data. • It has been recommended that twin drillholes are completed to provide comparison data to confirm existing grade profiles in the deposit. • No apparent relationships have been noted in relation to sample recovery and grade.
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. • The total length and percentage of the relevant intersections logged.	• All drill holes were geologically logged. • Existing chip samples have been logged in sufficient detail using Abelle's lithological codes to support geological confidence. It has been noted that in some areas there appear to be inconsistencies between logging from different generations of drilling. • Further twin RC holes are recommended to improve geological consistency. • Logging detailed lithology, alteration, mineralisation, weathering, oxidation, veining and structural features if available.
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 maximize 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.	• All RC samples were collected in 1m intervals through drill rig cyclone system and then split via (riffle and cone splitters) to produce a ~3kg assay sample. • Sample preparation process for all samples submitted followed industry standards, including oven drying sample for a minimum of 8 hours, crushing and pulverizing the sample to 85% passing 75 microns. • Quality control procedures for the PAN RC holes included the insertion of standards, blanks and field duplicates to monitor sampling and analytical processes. • No QAQC data was available from Historical Abelle drilling to review. • Panoramic have completed twin drilling on other nearby deposits and have achieved favourable results giving confidence that the data generated by Abelle can be considered with limited confidence at face value. • It is recommended that further drilling is completed to confirm grades and representivity of existing drilling data.
Quality of assay	• The nature, quality and appropriateness of the assaying	• The analytical technique used by PAN is Fire Assay (30g charge).

Criteria	JORC Code explanation	Commentary
data and laboratory tests	and laboratory procedures used and whether the technique is considered partial or total. • 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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• All analytical data generated by direct laboratory assaying. No field estimation devices were employed. • QAQC has been routinely completed during all sampling. The QAQC reports prepared by Panoramic were reviewed by the author and indicate that the assays being used in the estimate are a fair representation of the material that has been sampled. The Panoramic QAQC process was to insert 1 Certified Reference Material (CRM) or blank for every 20 RC samples and between 1 in 15 and 1 in 20 for diamond core samples. • For RC drilling, field duplicates were inserted at a rate of 1 in 25 samples. Coarse crush laboratory split duplicates were also inserted at a rate of 1 in 20 samples for both RC and DD drilling • No historical QAQC data was available for review
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.	• The deposit has sporadic continuity in terms of mineralisation and grade. Further drilling and geological interpretation is required to improve geological confidence. • No twin holes were completed on this deposit. Verification holes have been completed by Panoramic on neighboring deposits as part of their work programs to test continuity of mineralisation in selected sections. Virtually all drilling confirmed expected geological and mineralogical interpretations. • Logging was completed in excel templates and loaded into Panoramic's SQL database for validation. Sections were then generated and visual validation was completed to ensure integrity of the data. • No adjustments were made to assay data except for replacing negatives with half detection limit numerical values.
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.	• All drill hole set-outs, pickups and collar alignments were undertaken by TEAMS Surveying using DGPS equipment with a horizontal accuracy of ±10 mm and a vertical accuracy of ±15 mm. Down hole surveys were routinely performed every 30m using a range of electronic multi-shot (EMS) tool. Panoramic routinely performed gyroscopic check surveys of its drill holes as verification on the EMS surveys. The gyroscopic data confirmed the reliability of the EMS surveys and demonstrated drill hole deviation was not a significant issue at Specimen Well or at any other Gum Creek prospect drilled by Panoramic. • The grid system used in the resource estimate is MGA_GDA94 Zone 50. • A surface topography DTM was acquired with the purchase of the Project from Apex. The origin of the DTM is unclear, but accurately surveyed drill hole collar RLs agree closely with the DTM.
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.	• The drilling density is on a nominal 25m by 12m spacing through the majority of the deposit. This spacing is sufficient to give limited geological and mineralogical confidence in the style of the deposit being estimated. • Sample compositing to 1m intervals has been completed to try and represent selective mining units that would be typical in an open pit environment.
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.	• All drilling has been completed roughly perpendicular to the main strike of the deposit geometry and at angle to intercept mineralisation as close to perpendicular as possible. • No sampling bias is apparent from the direction of drilling.
Sample security	• The measures taken to ensure sample security.	• No information was available on historical sample security measures.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• All sampling techniques were by accepted industry standards. No audits or reviews have been undertaken.

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.	• All geological and assay information is printed on hard copy plans and visually validated against original logs and assay results to ensure the digital copy agrees with the original format. • Data validation is completed internally in SQL by setting allowable and expected values. Automated queries are run as the data is imported to ensure it meets specified criteria.
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.	• The author has not visited the site previously. Nearly all data utilised was of historical nature. • No current data collection is applicable to this resource estimate.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• There is low confidence in the geological understanding of the deposit. Grade and geology have been used to define a steeply dipping zone that is representative of typical shear hosted, style of deposit. • There is potential for a variation in internal grade and geological orientations • The data used for the resource estimate was from RC, AC and RAB drilling. Raw assays were composited to 1m to provide equal sample weights. Short composites were normalized to 1m via accumulation with grade value. • No alternative interpretations were considered, but are possible. • The geological model is a simple shear hosted deposit, consistent with all over deposits in the belt. Economic assay grades have been used to define the orientation of the shear zone. • Geology and grade continuity need to be confirmed with more drilling. QAQC data and consistent geological logging will impart greater geological confidence.
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 Specimen Well mineralisation is approximately 200m long and has a down dip extent of >170m (open at depth). The deposit consists of one main lode, which varies in thickness from 1 -10m
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 (eg sulphur for acid mine drainage characterisation). • In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. • Any assumptions behind modelling of selective mining units.	• Grade estimation of the Specimen Well deposit was completed using Inverse Distance squared (ID2) in Surpac software. 1m composites were generated from the drill hole database and then tagged according to mineralized wireframes generated at a 0.5g/t lower gold grade. The wireframe modeling conditions included, minimum down hole width of 2 meters of mineralisation, internal dilution of up to 2m down hole could be included if the entire intercept graded above 0.5g/t respectively. In some instances intercepts of less than 0.5g/t were included to maintain orientation/geological continuity. • Previous estimates of the Specimen Well deposit were completed by Legend Mining in 2003 and 2005. These were used as a guide and comparative tool for validation purposes with the current estimate. • No assumptions have been made about gold grade recovery or the recovery of related by-products. • No other elements have been estimated in this model • The block model was constructed with a parent cell size of 12.5m Y 8m X and 2.5m Z with sub-celling to 12.5m Y 2m X and 2.5mZ. All estimation is completed at the parent cell resolution. Data spacing is typically on 20m sections. Drill spacing within sections is typically 10m. The size of the search ellipse 30m radius oriented to the north with a westerly dip of -85. Ellipse ratios were semi major: 1.5/1 and minor: 4/1. The first estimation pass utilised a minimum of 4 samples and maximum of 32 samples with • The composites were generated at 1m down hole and the ore wireframes were maintained at a minimum width of 2m down hole to

Criteria	JORC Code explanation	Commentary
	• 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.	try and represent a minimum mining units in open pit operations. • No correlations between grade variables have been assumed. • The geology of the deposit is not well developed . • Top cut analysis was completed using disintegration analysis and use of coefficient of variation. Estimates were generated using cut and uncut grades to demonstrate the influence of outliers. • Validation of the resource estimate was completed by visual validation of block grades versus drill hole assays in sectional view on computer. Line graphs were generated to show comparison between composite input grades and output block grades over 20m RL intervals through the entire deposit to ensure the composite data was being accurately reflected in the model. The model was also compared with historical estimate to ensure report figures were reasonable.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• The tonnages are reported as dry tonnes.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The mineralisation wireframes were modeled on a gold lower grade cutoff of 0.5g/t. lower grades were included in some areas to achieve continuity of mineralised shape These values were determined by visual assessment of grade continuity in Surpac. • At the current gold price of $1700/ounce, gold grades in excess of 1g/t are economically extractable via open pit methods. • 0.5g/t-1.0g/t gold material is defined as economically viable at current price and will be stockpiled separately on surface to determine the most economical processing options based on current costs and gold prices at that point in time. • A depth constraint of 180 vertical meters has been applied to open pit extractable ounces.
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 resource has been modeled under the assumption that it will be mined by open pit methods. Typical mining fleets can extract ore blocks at widths of 2m over 2.5m bench heights. Mineralisation wireframes were constructed based on minimum thickness of 2m downhole intercepts to resolve smallest possible mining selectivity. • Reporting of tonnes and grade has been based on minimum mining thickness shapes and also economically viable cutoff grades.
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.	• Assumptions based on typical metallurgical recoveries have not been made in respect to the generation of this Mineral Resource estimate. • Metallurgical assumptions (based on test-work results) will be applied during the mine planning and conversion of resource to ore reserve stage of the Project BFS.
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.	• Specimen Well is a greenfields site. No material environmental concerns have been identified at this stage.
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,	• Density was estimated based on previous experience in the region. Weathering profiles were generated from the geology table of the database. The topographic surface was generated by extracting the

Criteria	JORC Code explanation	Commentary
	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.	drillhole layout from the database while the digital terrain models for the base of complete oxidation (boco100.dtm) and top of fresh rock (tofr100.dtm) surfaces were extracted using weathering information in the drillhole database where available. Oxide, transitional and fresh materials were assigned values of 2.00g/cm³, 2.30g/cm³ and 2.70g/cm³ respectively.
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• The classification of the resource has been based on low geological confidence with 25m*10m spaced RC and AC and RAB drilling. Gold mineralisation is variable over its strike length and other possible grade orientations are possible. • It is the author's opinion that all appropriate data and factors have been addressed and taken into account for this estimate. • The mineral resource reflects the competent person's view of the deposit
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• This work has been peer reviewed by BMGS personnel other than the author.
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 resource classification is based on standard practices and guidelines as prescribed in JORC 2012 • The resource estimate relates to a global estimate of tonnes and grade. • No historical production figures are available for this project.

Toedter

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • 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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• The deposit was sampled using Reverse Circulation (RC), Diamond Drilling (DD) and Rotary Airblast (RAB) techniques. A total of 128 RC holes for a total of 10,934m, 3 DD holes for 341m and 765 RAB holes for 21,589m. Two of the RC holes were drilled by PAN. • The drill spacing was nominally 20m * 10m grid spacing over the extent of the mineralisation. • RC holes were sampled by collecting one-metre samples from the quartz-rich altered zones. Four-metre speared composite samples were submitted for other parts of the holes. One metre samples were submitted from zones where four-metre composites returned elevated values. • The early sampling methods for RAB drilling by Abelle included the collection of samples for each metre drilled. These were laid in rows on the ground. Samples were spear-composited over four metres down hole for assay and again resubmitted if anomalous values were returned. • The diamond core was halved with a diamond saw and generally sampled to 1m intervals with shorter samples collected at geological contacts as is best practice. • All samples were submitted to Analabs in Perth for analysis. .
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• The drilling methods used on this deposit are RC drilling and DD and RAB drilling. The RC drilling was completed utilizing a 5 ¼ inch face sampling hammer. • The Diamond drilling was typically NQ (47.6mm) diameter core
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.	• RC sample recoveries are not available for historical data. • No core recovery information is available for historical holes. • It has been recommended that twin drillholes are completed to provide comparison data to confirm existing grade profiles in the deposit. • No apparent relationships have been noted in relation to sample recovery and grade.
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. • The total length and percentage of the relevant intersections logged.	• All drill holes were geologically logged. • Existing chip samples have been logged in limited detail using Abelle's lithological codes to support geological confidence. It has been noted that in some areas there appear to be inconsistencies between logging from different generations of drilling. • Further twin RC/DD holes are recommended to improve geological consistency. • Logging detailed lithology, alteration, mineralisation, weathering and oxidation features if available. There is no structural data available to review.
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 maximize 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.	• All RC samples were collected in 1m intervals through drill rig cyclone system and then split via (riffle and cone splitters) to produce a ~3kg assay sample. • Sample preparation process for all samples submitted followed industry standards, including oven drying sample for a minimum of 8 hours, crushing and pulverizing the sample to 85% passing 75 microns. • Quality control procedures by PAN included the insertion of standards, blanks and field duplicates to monitor sampling and analytical processes. • No QAQC data was available from historical Abelle drilling to review • Panoramic have completed twin drilling on other nearby deposits and have achieved favourable results giving confidence that the data generated by Abelle can be considered with limited confidence at face value. • It is recommended that further drilling is completed to confirm grades and representivity of existing drilling data.

Criteria	JORC Code explanation	Commentary
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. • 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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• The analytical technique used is Fire Assay (30g charge) • All analytical data generated by direct laboratory assaying. No field estimation devices were employed. • QAQC has been routinely completed during all Panoramic sampling. The QAQC reports prepared by Panoramic were reviewed by the author and indicate that the assays being used in the estimate are a fair representation of the material that has been sampled. The Panoramic QAQC process was to insert 1 Certified Reference Material (CRM) or blank for every 20 RC samples and between 1 in 15 and 1 in 20 for diamond core samples. • For RC drilling, field duplicates were inserted at a rate of 1 in 25 samples. Coarse crush laboratory split duplicates were also inserted at a rate of 1 in 20 samples for RC drilling. • No historical QAQC data was available for review.
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.	• The deposit has continuity in terms of mineralisation and grade. Further drilling and geological interpretation is required to improve geological confidence. • No twin holes were completed on this deposit. Verification holes have been completed by Panoramic on neighboring deposits as part of their work programs to test continuity of mineralisation in selected sections. Virtually all drilling confirmed expected geological and mineralogical interpretations. • Logging was completed in excel templates and loaded into Panoramic's SQL database for validation. Sections were then generated and visual validation was completed to ensure integrity of the data. • No adjustments were made to assay data except for replacing negatives with half detection limit numerical values.
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.	• All drill hole set-outs, pickups and collar alignments were undertaken by TEAMS Surveying using DGPS equipment with a horizontal accuracy of ±10 mm and a vertical accuracy of ±15 mm. Down hole surveys were routinely performed every 30m using a range of electronic multi-shot (EMS) tool. Panoramic routinely performed gyroscopic check surveys of its drill holes as verification on the EMS surveys. The gyroscopic data confirmed the overall reliability of the EMS surveys and demonstrated drill hole deviation was not a significant issue at Toedter or at any other Gum Creek prospect drilled by Panoramic. • The grid system used in the resource estimate is MGA_GDA94 Zone 50. • A surface topography DTM was acquired with the purchase of the Project from Apex. The origin of the DTM is unclear, but accurately surveyed drill hole collar RLs agree closely with the DTM.
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.	• The drilling density is on a nominal 20m by 10m spacing through the majority of the deposit. This spacing is sufficient to give geological and mineralogical confidence in the style of the deposit being estimated. • Sample compositing to 1m intervals has been completed to try and represent selective mining units that would be typical in an open pit environment.
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.	• All drilling has been completed roughly perpendicular to the main strike of the deposit geometry and at angle to intercept mineralisation as close to perpendicular as possible. • No sampling bias is apparent from the direction of drilling.
Sample security	• The measures taken to ensure sample security.	• No information was available on historical sample security measures.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• All sampling techniques were by accepted industry standards. No audits or reviews have been undertaken.

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.	• All geological and assay information is printed on hard copy plans and visually validated against original logs and assay results to ensure the digital copy agrees with the original format. • Data validation is completed internally in SQL by setting allowable and expected values. Automated queries are run as the data is imported to ensure it meets specified criteria.
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.	• The author has not visited the site previously. Nearly all data utilised was of historical nature. • No current data collection is applicable to this resource estimate. There is no historical data to review on site.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• There is low confidence in the geological understanding of the deposit. Grade and geology have been used to define a steeply dipping stacked lode zone that is representative of typical shear hosted, style of deposit. • There is potential for a variation in internal grade and geological orientations • The data used for the resource estimate was from RC, DD and RAB drilling. Raw assays were composited to 1m to provide equal sample weights. Short composites were normalized to 1m via accumulation with grade value. • No alternative interpretations were considered, but are possible. • The geological model is a simple stacked shear hosted deposit. Economic assay grades have been used to define the orientation of the individual lodes in the shear zone. • Geology and grade continuity need to be confirmed with more drilling. QAQC data and consistent geological logging will impart greater geological confidence.
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 Toedter mineralisation is approximately 250m long and has a down dip extent of >170m (open at depth). The deposit consists of parallel staked lodes, which varies in thickness from 1 -10m and are spaced between 2-15m apart.
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 (eg sulphur for acid mine drainage characterisation). • In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. • Any assumptions behind modelling of selective mining units.	• Grade estimation of the Toedter deposit was completed using Inverse Distance squared (ID2) in Surpac software. 1m composites were generated from the drill hole database and then tagged according to mineralized wireframes generated at a 0.5g/t lower gold grade. The wireframe modeling conditions included, minimum down hole width of 2 meters of mineralisation, internal dilution of up to 2m down hole could be included if the entire intercept graded above 0.5g/t respectively. In some instances intercepts of less than 0.5g/t were included to maintain orientation/geological continuity. • Previous estimates of the Toedter deposit were completed by Legend Mining in 2005, Abelle in 2002 and Australian Resources in 1997. These were used as a guide and comparative tool for validation purposes with the current estimate. • No assumptions have been made about gold grade recovery or the recovery of related by-products. • No other elements have been estimated in this model • The block model was constructed with a parent cell size of 10m Y 5m X and 5m Z with sub-celling to 5m Y 2.5m X and 1.25mZ. All estimation is completed at the parent cell resolution. Data spacing is typically on 20m sections. Drill spacing within sections is typically 10m. The size of the search ellipse 40m radius oriented to the north with a westerly dip of -70. Ellipse ratios were semi major: 1/1 and minor: 4/1. The first estimation pass utilised a minimum of 4 samples and maximum of 32 samples with • The composites were generated at 1m down hole and the ore wireframes were maintained at a minimum width of 2m down hole to try and represent a minimum mining units in open pit operations.

	• 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.	• No correlations between grade variables have been assumed. • The geology of the deposit is not well developed. And will benefit from further drilling and geological work. • Top cut analysis was completed using disintegration analysis and use of coefficient of variation. Estimates were generated using cut and uncut grades to demonstrate the influence of outliers. • Validation of the resource estimate was completed by visual validation of block grades versus drill hole assays in sectional view on computer. Line graphs were generated to show comparison between composite input grades and output block grades over 20m RL intervals through the entire deposit to ensure the composite data was being accurately reflected in the model. The model was also compared with historical estimate to ensure report figures were reasonable.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• The tonnages are reported as dry tonnes.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The mineralisation wireframes were modeled on a gold lower grade cutoff of 0.5g/t. lower grades were included in some areas to achieve continuity of mineralised shape These values were determined by visual assessment of grade continuity in Surpac. • At the current gold price of $1700/ounce, gold grades in excess of 1g/t are economically extractable via open pit methods. • 0.5g/t-1.0g/t gold material is defined as economically viable at current price and will be stockpiled separately on surface to determine the most economical processing options based on current costs and gold prices at that point in time. • A depth constraint of 120 vertical meters has been applied to open pit extractable ounces.
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 resource has been modeled under the assumption that it will be mined by open pit methods. Typical mining fleets can extract ore blocks at widths of 2m over 2.5m bench heights. Mineralisation wireframes were constructed based on minimum thickness of 2m downhole intercepts to resolve smallest possible mining selectivity. • Reporting of tonnes and grade has been based on minimum mining thickness shapes and also economically viable cutoff grades.
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.	• Assumptions based on typical metallurgical recoveries have not been made in respect to the generation of this Mineral Resource estimate. • Metallurgical assumptions (based on test-work results) will be applied during the mine planning and conversion of resource to ore reserve stage of the Project BFS.
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.	• No material environmental concerns have been identified.
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	• Density was estimated based on previous experience in the region. Weathering profiles were generated from the geology table of the database. The topographic surface was generated by extracting the drillhole layout from the database while the digital terrain models for the base of complete oxidation (boco100.dtm) and top of fresh rock

	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.	(tofr100.dtm) surfaces were extracted using weathering information in the drillhole database where available. Oxide, transitional and fresh materials were assigned values of 2.00g/cm³, 2.30g/cm³ and 2.70g/cm³ respectively.
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• The classification of the resource has been based on low geological confidence with 20m*10m spaced RC and DD and RAB drilling. Gold mineralisation is variable over its strike length and other possible grade orientations are possible. • It is the author's opinion that all appropriate data and factors have been addressed and taken into account for this estimate. • The mineral resource reflects the competent person's view of the deposit
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• This work has been peer reviewed by BMGS personnel other than the author.
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 resource classification is based on standard practices and guidelines as prescribed in JORC 2012 • The resource estimate relates to a global estimate of tonnes and grade. • No historical production figures are available for this project.

Shiraz

Section 1 - Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • 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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• The deposit has been extensively sampled using Reverse Circulation (RC) drilling techniques. The Shiraz (Gidgee Gold Project) Resource database subset contains 142 RC & 2 diamond (DD) drill holes for a total of 12,656m. Of this total, 20 RC holes totalling 2,614 were drilled by Panoramic in 2013 as part of a Gidgee Gold Project Feasibility Study. In addition the database contains 196 historical RAB holes (totalling 5,676m which have not been used for resource estimation. • The drill spacing is typically 20m * 20m grid spacing over the extent of the mineralisation. • RC holes were sampled by collecting 1m samples and splitting these down to a ~3kg assay sample using either automated on-board rig cone splitters or by manual riffle splitting. • Only two historical diamond holes have been drilled at Shiraz. The core size of both holes is unknown. • All (1,670) recent Panoramic resource assay samples were submitted to ALS Laboratories in Perth for gold analysis by FA30 (Fire Assay) technique. Of the 5,871 historical RC & DD gold assays in the Shiraz database, 3,566 (61%) have an un-known technique. In addition, results for 1,836 (24% of the entire analytical database) QAQC samples are recorded in the database.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• The drilling method used to evaluate the deposit is predominantly RC. The historic RC drilling was typically completed using 5 ¼ inch hammers. Face sampling, 5 ¼ inch RC hammers were used by Panoramic.
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.	• RC sample recoveries were monitored by Panoramic by recording visual estimates of the sampling bags. Typical recoveries for RC were greater than 90%. • No apparent relationships were noted between sample recovery and grade.
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. • The total length and percentage of the relevant intersections logged.	• All drill holes in the Shiraz resource database have been geologically logged. • RC samples in recent Panoramic drill holes have been logged using geological legends in sufficient detail to support geological confidence in Mineral Resource estimates. • Logging details lithology, weathering, oxidation, veining, and mineralisation. • All mineralised intersections and associated samples have been logged in full.
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	• For the two historical diamond holes no sampling information is recorded • All RC samples were collected in 1m intervals through the drill rig cyclone system and reduced to a ~3kg assay sample by either automated on-board cone splitters or manually by riffle splitting. • The sample preparation process for all samples submitted for analysis followed industry standards, including oven drying for a minimum of 8 hours, crushing and pulverizing to 85% passing 75 microns. • Quality control procedures included the insertion of standards, blanks and field duplicates to monitor sampling and analytical processes. In addition ALS Laboratories in Perth conducted their own internal QAQC system. • All sampling by Panoramic was conducted according to accepted industry practices. • The sample sizes used are industry accepted standards used

Criteria	JORC Code explanation	Commentary
	the material being sampled.	extensively throughout the goldfields and are appropriate to the style of deposit.
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. • 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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• The analytical technique used is Fire Assay (30g charge). Where other element determinations were made it was generally by 4 acid digest and either ICP OES or AAS technique. • No other geophysical or analytical tools have been used to estimate grade. • QAQC has been routinely completed during all sampling. The QAQC results indicate the assays being used for resource estimation are a fair representation of the material being sampled. The Panoramic QAQC process was to insert 1 Certified Reference Material (CRM) or blank for every 20 RC samples. A CRM quartz wash blank was also inserted at the beginning of each RC assay batch and where possible immediately prior to the mineralised intervals. • For RC drilling, field duplicates were inserted at a rate of 1 in 25 samples. Coarse crush laboratory split duplicates were also inserted at the rate of 1 in 20 samples.
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.	• The deposit is continuous in terms of mineralisation and grade. The continuity and consistency of the grade intercepts down dip and along strike give strong confidence in the verification of the grade and style of deposit. • No twin holes were completed. Verification holes were completed by Panoramic to test continuity of mineralisation in selected sections. The drilling confirmed expected geological and mineralogical interpretations. • Logging was completed in logging code protected excel templates and loaded into Panoramic's SQL database for validation. Sections were then generated and visual validation was completed to ensure integrity of the data. • No adjustments were made to assay data except for replacing negative (below detection reported results) with half detection limit numerical values.

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.
		• All drill hole set-outs, pickups and collar alignments were undertaken by TEAMS Surveying using DGPS equipment with a horizontal accuracy of ±10 mm and a vertical accuracy of ±15 mm. Down-hole surveys were routinely performed every 30m using a range of single shot, electronic multi-shot and north seeking gyro tools. Panoramic validated all down hole survey data to correct anomalous readings due to magnetic interference. Recent gyroscopic surveys undertaken by Panoramic confirmed the reliability of earlier single and multi-shot readings.
		• All recent planned drill hole locations were positioned by hand-held global positioning satellite (GPS) in MGA GDA94 zone 50 and subsequently set-out and picked up by differential GPS. A total of 41 historical drill holes located on a former Shiraz grid were also picked up by Panoramic in MGA. All recorded Shiraz drill positions have been converted to the "Mt Townsend" local grid by Panoramic. The database contains both MGA and local coordinates, but for the purpose of this estimate the local grid coordinates have been used.
		• Conversion from Mt Townsend grid to MGA GDA94 Zone 50 is based on a two point transformation:
		  • 10000E, 7080N = 744294.62E, 6996202.93N
		  • 10000E, 8560N = 743940.53E, 6997640.12N
		• Conversion from Shiraz grid to MGA GDA94 Zone 50 is based on a two point transformation:
		  • 50000E, 50707N = 743469.32E, 6997462.19N
		  • 50000E, 49293N = 744679.63E, 6996730.39N
		• The Shiraz topographic layer was created by Panoramic using a 2006 Landgate aerial survey and modified by DGPS pickups of historical and current drill-hole collars as well as two control tie lines set out across the project area.

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	• The drilling density is on a nominal 20m by 20m grid spacing through the majority of the deposit. This spacing is sufficient to provide strong geological and mineralogical confidence in the style of the deposit

Criteria	JORC Code explanation	Commentary
	appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	being estimated. • Outside of the mineralised zones and through RC pre-collars, 3 metre composite spear samples were collected and submitted for assay. If any of these returned anomalous gold values (> 0.2g/t) then the original 1 metre (~3kg) cone split drill-rig samples were submitted from the respective composites.
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.	• All drilling has been completed roughly perpendicular to the main strike of the deposit geometry and at angle to intercept mineralisation as close to perpendicular as possible. • No sampling bias is apparent from the direction of drilling.
Sample security	• The measures taken to ensure sample security.	• Samples were kept secure on site until dispatched direct to the ALS laboratory in Perth.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audits or review of the Panoramic sampling procedures and protocols has been completed.

Section 3 - Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	• Data Logging was completed in logging code protected Excel™ templates and loaded into Panoramic's SQL server database, with a Datashed software front-end, for validation and storage. • All geological and assay information was printed on hard copy plans and visually validated against original logs and assay results to ensure the digital copy agrees with the original format. • Data validation was completed internally in SQL Server by setting allowable and expected values. Automated queries are run as the data is imported to ensure it meets specified criteria. • A subset of the SQL database, restricting the data to the Shiraz Resource area, was exported into MS Access database. Additional data checks were run to ensure appropriate data robustness for the Resource Estimation.
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.	• No site visits were completed by BMGS. Panoramic staff managed the 2013 drill program and was integral in the development of the Shiraz geological/mineralisation model. • Site visits were not required as the documented procedures employed by Panoramic were deemed appropriate for the style of deposit and the work was undertaken to industry accepted standards.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• There is a high degree of confidence in the geological interpretation of the Shiraz deposit. Shiraz is classified as an Archean orogenic shear hosted deposit. The mineralisation is typically associated with the presence of arsenopyrite, pyrrhotite and trace pyrite. • The data used for the resource estimate was from RC and diamond drilling. Raw assays typically 1m in length were composited to 2m to provide equal sample weights and reduce grade variance. • Two resource estimates were performed. The first was performed using ordinary kriging within a grade envelope interpretation of 0.4g/t Au, whilst allowing for internal dilution of up to 3metres. A second broader interpretation was undertaken for a comparable MIK estimate. The MIK estimate ensured a broader continuity at a lower grade cut-off of 0.2g/t Au. • The geological and mineralisation models are based on detailed geological logging which restricts the concentration of Au mineralisation to an altered sequence within the Shiraz Dolerite. The altered sequence is characterized by 5-25% veining, and the presence of associated blue quartz and arsenopyrite, pyrrhotite and trace pyrite mineralisation. • The geological and grade continuity is typical of most gold deposits where the continuity at a lower grade cut-off is far greater than the higher grade thresholds. There is a presence of localised higher grade zones within the mineralised domain. The continuity of these high grade zones vary from good continuity in the heart of the deposit and dissipate on the margins of the deposit.

Criteria	JORC Code explanation	Commentary
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 Shiraz mineralised domain is approximately 700m long and has a down dip extent of 150m in the southern end of the deposit and is open at depth. The deposit consists of a main lode that varies between 2m and 25m thick with numerous parallel and sub-parallel lodes at various stages along the length of the deposit.
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.	• Grade estimation of Shiraz deposit was completed using two separate methods: (1) Ordinary Kriging (OK) in Surpac^{TM} software and (2) Multiple Indicator Kriging (MIK) using GS3 software. Variogram analysis and modelling for the OK estimate was completed using Supervisor software. Two meter composites were generated from the drillhole database and then tagged according mineralized wireframes generated at a 0.4g/t gold grade cut-off. The wireframe modelling conditions included, a minimum down-hole mineralisation width of 2 meters, internal dilution of up to 3m downhole could be included if the entire intercept graded above 0.4 g/t. If dilution was greater than 3m then separate lodes were generated if geological/grade continuity was permissible (typically used trouser legs on the fringes of the main lode). • The data was review through disintegration analysis and reviewing the raw statistics to determine whether applying a top-cut was necessary. It was decided a top-cut was unwarranted, therefore all estimates were run as Uncut. The dataset was then normal scores transformed to generate variogram models. The variogram models had moderate to low nuggets with range of maximum continuity along the main axis of 26m. Separate variograms were also generated for the MIK estimate, based on the different ranked grade thresholds; metal variograms were also generated.
	• The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	• A previous estimate of the Shiraz deposit was completed in 2000 by Abelle Mining. The historical estimate appears to have been constructed at a much higher grade cut-off and is non-comparable with either of the two BMGS estimates. Therefore comparisons can only be made between the two recent estimates. The comparison demonstrates that the metal accumulation between models is generally comparable with a slight fall in the MIK estimate. This is most likely a result of the broader domain boundaries used in the MIK estimate.
	• The assumptions made regarding recovery of by-products.	• No assumptions have been made about gold grade recovery or the recovery of related by products. However it is understood that there is a refractory component, as mineralisation is associated with a sulphide assemblage including arsenopyrite.
	• Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	• A review of deleterious elements or other non-grade variables was undertaken. Out of the available 8,644 samples 5,329 had been analysed for arsenic (As). It was established that an arsenic-gold correlation was present and with the As refractory component being responsible for expected lower recoveries using traditional CIL processing methods and given that almost 60% of the dataset was assayed for As, As was then estimated. The arsenic was estimated using id2 estimation methods, with similar search criteria used for the Au estimation. The blocks which did not estimate a value were then allocated the block mean grade by domain (Ore- 2815ppm and Waste- 823ppm). Given that the majority of the available As data was evenly spread in the southern extent of the deposit the arsenic estimate itself is considered representative. The northern extent of the deposit was not assayed for arsenic and this proportion of the estimate is considered inaccurate.
	• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	• The OK block model was constructed with a parent cell size of 20m Y 20m X and 10m Z with subcelling to 2.5m Y 2.5m X and 1.25m Z. All estimations completed at the parent cell resolution. Data spacing is typically on 20m sections by northing and 10m on section by easting. The size of the initial search ellipse was based on the variography with a cascading five pass estimation used to populate cells. The first estimation pass utilized a minimum of 12 and maximum of 32 samples without octant constraints. The search criteria were then changed for the remaining estimation passes. The MIK model was constructed using a block size of 20m Y 20m X and 10m Z.
	• Any assumptions behind modelling of selective mining units.	• The composites were generated at 2m downhole and the ore wireframes were maintained at a minimum width of 2m downhole to simulate a minimum mining width assuming an open pit mining

Criteria	JORC Code explanation	Commentary
	• 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.	operation using excavators of approximately 120 tonnes. • Although a semi correlation between As and Au exist at Shiraz, no correlations between grade variables have been assumed. • The geology of the deposit is classified as an Archean orogenic shear hosted deposit. The mineralisation is confined to an altered sequence of the Shiraz Dolerite. The alteration sequence is characterized by 5-25% veining, and the presence of associated blue quartz and arsenopyrite, pyrrhotite and trace pyrite mineralisation. • Validation of the resource estimate was completed by onscreen visual validation of block grades vs. drill hole assays in sectional view. Line graphs were also generated to show comparison between composite input grades and block output grades over 25m intervals (in both northing and easting directions) through the entire deposit to ensure the composite data was accurately reflected in the model. The OK model was also compared to the MIK estimate to ensure the estimates were sensible.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• The tonnages are reported as dry tonnes. Sample preparation process involved drying the samples for 8hrs prior to analysis.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The mineralisation wireframes for the OK estimate were modelled on a gold grade cut off of 0.4g/t. This value was determined by visual assessment of grade continuity. The mineralised envelope adopted for the MIK estimate was slightly broader with a continuity of 0.2g/t Au.
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 Shiraz deposit has been modelled under the assumption that it will be mined by conventional open pit mining methods using excavators and trucks. This would typically entail 5m bench heights with 2.5m flitches and the use of 120 tonne excavators with a bucket width of approximately 2m to mine the majority of the pit. The potential then exists to engage a smaller 30 tonne excavator to mine thinner higher-grade ore zones in order to maximise head grade and reduce dilution. Mineralisation wireframes were constructed to a minimum downhole length of 2m to replicate the smallest possible mining selectivity.
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.	• No metallurgical assumptions have been made in respect to the generation of the estimate. This will be undertaken in the advent that the Resource is converted to an Ore Reserve. Metallurgical testwork is currently being undertaken by Panoramic as part of the broader Gidgee Gold Project Feasibility Study.
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 potential environmental implication of mining Shiraz relates to the presence of elevated arsenic levels. This issue will need to be considered in any future mining proposal.
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	• No Bulk density (BD) determinations have been completed on the Shiraz Project, however determinations were performed on the nearby Wilsons Project, which is hosted in the same stratigraphic dolerite sequence. The densities applied to the Shiraz Deposit are based the Wilsons density data. The assigned density values are; Oxide - 2.0g/cm^3, Transitional - 2.4 g/cm^3 and Fresh - 2.8 g/cm^3.

Criteria	JORC Code explanation	Commentary
	the evaluation process of the different materials.	
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• The classification of the OK resource has been weighted by strong geological continuity within the Indicated resource area (>80% of the resource), with weaker continuity observed in the Inferred resource area (<20% of the resource). The classification of the MIK estimate is heavily influenced by the search parameters applied. • Two diamond drill holes are present at Shiraz; located at the northern and southern limits of the deposit. The southern extent of the deposit has a higher drill density spacing of 20x10m compared with the northern extent which is less densely drilled at 40x20m. • The gold mineralisation is highly continuous over a 750m strike length within an altered sequence of the Shiraz Dolerite. The bulk of the resource has been classified as Indicated, including the less densely drilled northern extent of the deposit (although intuitively the northern extent is of lower confidence). • The Mineral Resource estimate reflects 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 of the Mineral Resource estimate have been completed.
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 resource classification is based on standard practices and guidelines as prescribed in the 2012 JORC Code. • The Resource estimate relates to a global estimate of tonnes and grade. • A small shallow oxide pit is present at Shiraz and is approximately 100m in strike and 30m in vertical depth. Detailed reconciliation data specific to Shiraz pit is unavailable and no mine specific comparisons have been undertaken. The pit volume has been excluded from the Shiraz Mineral Resource estimate.

Kingfisher

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • 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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• The Inferred Resource stated in this report is for the Kingfisher Underground project. Reverse Circulation Drilling (RC) and Diamond Drilling (DD) were the techniques used. 18 DD holes and 12 RC holes were used in the evaluation. The Kingfisher mine was drilled from 1990 to 1995 with the majority of the deeper holes drilled in 1994 to 1995. Mining has occurred in an Open Pit and Underground. Historically there were two bodies of mineralization named the Western and Eastern Lode. The current study considers mineralisation in both lodes with most of the mineralization occurring in the Eastern Lode. Lodes consist of quartz veins hosted by highly sheared basalt and basaltic tuffs. The dip is 60 degrees to the West. • Sampling has involved 1m RC cuttings using a three tier riffle splitter in dry materials and a wedge splitter or rotary splitter in wet materials. Usually 2kg was retained. • DD involved NQ core. • Sampling of diamond core has involved sampling over geological intervals (down to 0.15m). The diamond core has generally been half cored. • Half core was assayed for gold by 50g fire assay. 1m RC data was assayed by 50g fire assay.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• RC and DD were the only types of drilling used in the Inferred Resource estimate. • RC drilling used a down hole enclosed hammer. Smearing would not be an issue.
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.	• Most drilling showed good recovery. • All RC samples were thoroughly mixed in the riffling process. • There is no stated evidence of there being sample bias due to preferential sampling. • There is no relationship between sample recovery and grade.
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. • The total length and percentage of the relevant intersections logged.	• Drill core was appropriately logged. • Both Open Pit and Underground mining had been carried out and the metallurgical characteristics of the ore are well known. • Logging is qualitative in nature and was completed on all drill holes.
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.	• Sampling has involved 1m RC cuttings using riffle splitter in dry materials and a wedge splitter or rotary splitter in wet materials. Usually 2kg was retained. • DD has involved NQ core. • Sampling of diamond core has involved sampling over geological intervals (down to 0.15m). The diamond core has generally been half cored. • The following comments apply to the assaying carried out at the Gidgee mine site in general. This is relevant as evaluation of the Kingfisher project was ongoing. In 1985 assaying was by the Aqua Regia process with check assaying carried out by fire assay. In 1986 Aqua Regia was used. In 1987 Aqua Regia was used with some fire assaying. In 1988 fire assaying was implemented and statements contained in the 1988 Annual Report refer to check assays (10%) being carried out by Aqua Regia. Most subsequent assaying was by fire assay and this constitutes the majority of assays used in the Inferred Resource. There are indications of Standards and Blanks having been submitted prior to 2002 however there is insufficient information to complete an accurate analysis. There are lists of

Criteria	JORC Code explanation	Commentary
		Standards and Blanks having been submitted post 2002 and an analysis of these shows good correlation. No evidence has been found in the mining process that there was suspected issues with assaying. An analysis of selected Duplicates showed that in general the precision of samples was adequate given there is a coarse gold component. • The analytic techniques were appropriate with approximately a 30-50g charge pulverized to 85% passing -200 mesh. Where coarse gold occurred screen fire assaying was carried out using a 105 micron sieve. • Sample sizes are adequate for the material being sampled. • The Kingfisher samples were assayed at site from 1991 to 1992. From 1994 to 1996 diamond half core was assayed by 50g fire assay.
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. • 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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• The assaying used to estimate the Inferred Resource is by fire assay which is a total analytical process. • The following general comments can be made about assaying accuracy at the Gidgee site: • Post 2002 there exists a complete list of Standards and Blanks. This data has been analysed and shows no bias. Prior to 2002 checks, Standards and Blanks were located. There was insufficient information to complete an analysis of this data. However there has been no evidence of any comment to the effect that mining (over considerable tonnages) showed that assays had been biased. Furthermore it is unlikely that there could have been a systematic bias given that several laboratories were used for assaying over the period for which the Inferred Resource has been calculated.
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.	• There has been no independent verification of significant intersections. • There have been no twinned holes deliberately drilled. • There have been no adjustments made to assay data.
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.	• Accurate surveying was carried out of drill hole collars. Prior to 2002 the method of down hole survey is not recorded at Gidgee.
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 is generally on a 40m X 40m grid spacing. This drilling together with the fact that the orebody has been mined in both Open Pit and Underground using a much closer drilling grid makes it appropriate for the classification of Inferred Resource to be used for reporting. The interpreted mineralisation is discontinuous and would require drilling much closer (say 20m X 20m) to lift its classification. • Samples have been composited to provide Intersections which reflect the Underground mining method of long hole open stoping.
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.	• The drill holes are basically intersecting the orebody at an optimal angle.
Sample security	• The measures taken to ensure sample security.	• There is no evidence to suggest inadequate sample security.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No evidence has been located of historical audits being carried out on the deposit.

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.	• The database used in this work was obtained during the Competent Person's site visit in December 2004 and has been kept at the Competent Person's Perth office since that time.
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.	• The Competent Person visited the site in 2004 and was responsible for the Closure Report of the Gidgee Mine in 2005. Time was spent with the Chief Geologist reviewing all projects at the site including the Kingfisher project.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• The Kingfisher orebody had been mined both as an Open Pit and Underground. The Inferred Resources being estimated are below the current pit and North of the existing underground workings at 10,349mN. • There is very little scope for alternative gross lode interpretations. However there is short scale variability within lodes and locally the interpretation could change with increased drilling density. • Known geology based on historical mining has been used as the basis of the interpretation. • Due to the understanding obtained from previous underground and open pit mining a very reasonable interpretation exists in a general gross sense however locally there is a possibility that interpretations could change.
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 Underground Inferred Resource is approximately 150m North of existing underground workings and covers an area of approximately 250m wide by 350m deep, beginning at a depth of about 80m below the pit.

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 (eg sulphur for acid mine drainage characterisation).
	• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
	• Any assumptions behind modelling of selective mining units.
	• Any assumptions about correlation between variables.
	• Description of how the geological interpretation was used to control the resource estimates.
	• Discussion of basis for using or not using grade cutting or capping.
	• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.
		• Intersection Selection was carried out using the following parameters for Underground mining, assuming long hole open stoping:
		  ◦ Cut-off Grade: 3.0g/t
		  ◦ Minimum Mining Width: 3m Down hole (Approx 2.5m horizontal)
		  ◦ Edge Dilution: 0.5m Either Side Down hole
		• Intersection Selection results were then used to create wireframes.
		• Block Modelling was carried out for Inferred Resources using the following parameters:
		  ◦ Block Size: 1m North South, 1m East West, 1m RL
		  ◦ Block Discretisation: 1 East, 1 North, 1 RL
		  ◦ Search Type: Elliptical Octant
		  ◦ Maximum Number of Samples: 32
		  ◦ Interpolation: Inverse Distance Squared
		  ◦ Search Size: 50m Down dip, 50m Along strike, 4m Across strike [These were obtained from historical variography which was in use at the Legend minesite.] For reporting purposes material within the wireframes contains the reported Inferred Resource.
		  ◦ Note: Reporting is not carried out on block cut-off grades but within wireframed shapes. Hence the small blocks (stated above) are only used to define accurate shape geometry.
		• The average of the samples within the wireframe shape were used to give each wireframe shape a value.
		• A high grade cut of 50g/t has been used.
		• All Inferred Resource modelling was carried out using SURPAC.

Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• Tonnages are estimated on a dry basis.
Cut-off	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• A cut-off grade of 3.5g/t has been used based on Eastern Goldfields mining costs. A gold price of A$2,000 (Australian dollars) per ounce

Criteria	JORC Code explanation	Commentary
parameters		has been used. • The cut-off grade for Underground Inferred Resources is based on mining costs, overheads and milling. It does include some allowance for development related to mining material which is distal to present Underground workings.
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 assumed mining method is long hole retreat open stoping using decline and standard levels. • Further confirmatory drilling and some data validation will be necessary to convert the Inferred Resource to Indicated Resource. • Additional dilution may be necessary to allow for blasting.
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.	• Conventional gravity/CIL gold extraction and recovery is applicable. The ore has been mined from underground in the past and its metallurgical characteristics are known.
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.	• Site investigation of the existing tailings storage facility revealed no deleterious materials from treating similar ores in the past. A Mining Proposal has been granted by DMP in 2014 for mining and processing Swift ore. There are no known issues which would affect this approval being extended to include Kingfisher ore.
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.	• Based on historic mining the following bulk density has been used: • Fresh: 2.75 tonnes per cubic metre
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• Due to the drill hole density which is approximately 40m X 40m drilling, the mineralisation is classified as Inferred. • The result reflects the Competent Person's view of the orebody.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• The only audits and reviews of these estimates has been by Carras Mining Pty Ltd in 2004, 2006, 2007 and 2012.
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	• In an overall sense, the estimates should be accurate. However, locally estimates can vary due to the complex nature of the geology. Geological interpretation at the local scale remains the biggest source of potential error. However the previous mining of both Open Pit and Underground has resulted in reasonable understanding of geological

Criteria	JORC Code explanation	Commentary
	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.	control. • Overall the estimates should be reasonable if taken over large tonnages. This is typical of all Eastern Goldfields gold deposits.

Wilsons

Section 1 - Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • 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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	• The deposit was sampled using Reverse Circulation (RC), Aircore (AC) and Diamond drilling (DD) techniques. A total of 213 RC holes for a total of 19,400m, 4 AC holes for 195m and 162 diamond holes for 53,328m. • The drill spacing was nominally 40m * 40m grid spacing over the extent of the mineralisation. • RC holes were sampled by collecting 1m samples and splitting these down using a (cone and riffle splitter) to approximately 3kg sample sizes. • Diamond holes were typically NQ in diameter and were sampled by cutting the core in half over geologically logged intervals that typically ranged between 30cm and 1.2m. • All samples were submitted to ALS Wangara for analysis by Fire Assay. Field and laboratory duplicates and analytical standards were routinely inserted to quantify QAQC performance.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• The drilling methods used on this deposit are RC drilling and DD drilling. The RC drilling was completed utilizing a 5 ¼ inch face sampling hammer. • The Diamond drilling was typically NQ2 (50mm) diameter core • All core was oriented where possible using "Ori-Mark" system.
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.	• RC sample recoveries were monitored by recording visual estimates of the sample bags prior to sampling. Typical recoveries for RC were >90% • Core recovery is noted during drilling process and geological logging process as a percentage recovered vs. expected drill length. Core was reconstructed into continuous runs on a length of angle iron to enable accurate geological logging and estimation of core recovery. • No apparent relationships were noted in relation to sample recovery and grade.
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. • The total length and percentage of the relevant intersections logged.	• All drill holes were geologically logged. • Both chip and core samples have been logged in sufficient detail using Panoramic's lithological codes to support geological confidence in Mineral Resource Estimates. • Logging detailed lithology, alteration, mineralisation, weathering, oxidation, veining and structural features if available.
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	• All diamond core was half core sampled using an electric diamond core saw. The minimum sample length was 0.3m. • All RC samples were collected in 1m intervals through drill rig cyclone system and then split via (riffle and cone splitters) to produce a ~3kg assay sample. • Sample preparation process for all samples submitted followed industry standards, including oven drying sample for a minimum of 8 hours, crushing and pulverizing the sample to 85% passing 75 microns. • Quality control procedures included the insertion of standards, blanks and field duplicates to monitor sampling and analytical processes.

Criteria	JORC Code explanation	Commentary
	the material being sampled.	• The sample sizes used are those typically used throughout the goldfields and are considered appropriate to this style of deposit.
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. • 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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	• The analytical technique used is Fire Assay (30g charge) • All analytical data generated by direct laboratory assaying. No field estimation devises were employed. • QAQC has been routinely completed during all sampling. The QAQC results indicate that the assays being used in the estimate are a fair representation of the material that has been sampled. The Panoramic QAQC process was to insert 1 Certified Reference Material (CRM) or blank for every 20 RC samples and between 1 in 15 and 1 in 20 for diamond core samples. The CRM quartz wash blank was also inserted at the beginning of each diamond core assay batch and where possible immediately prior to the mineralised intervals. • Quarter core field duplicates were submitted at a rate of 1 in 20 samples. For RC drilling, field duplicates were inserted at a rate of 1 in 25 samples. Coarse crush laboratory split duplicates were also inserted at a rate of 1 in 20 samples for both RC and DD drilling.
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.	• The deposit is very continuous in terms of mineralisation and grade. The continuity and consistency of the grade intercepts down dip and along strike give strong confidence in the verification of the grade and style of deposit. • No twin holes were completed. Verification holes were completed by Panoramic to test continuity of mineralisation in selected sections. Virtually all drilling confirmed expected geological and mineralogical interpretations. • Logging was completed in excel templates and loaded into Panoramic's SQL database for validation. Sections were then generated and visual validation was completed to ensure integrity of the data. • No adjustments were made to assay data except for replacing negatives with half detection limit numerical values.

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.
		• All drill hole set-outs, pickups and collar alignments were undertaken by TEAMS Surveying using DGPS equipment with a horizontal accuracy of ±10 mm and a vertical accuracy of ±15 mm. Down hole surveys were routinely performed every 30m using a range of electronic multi-shot (EMS) tool. Gyroscopic surveys were completed as verification on the EMS surveys on all Panoramic drill holes or 95% of the total drilling. The gyroscopic data confirmed the reliability of the EMS surveys.
		• The grid system used in the resource estimate is a local grid system which is rotated 13.5 degrees to the west of MGA_GDA94 Zone 50.
		• Conversion from local grid to MGA GDA94 Zone 50 is based on a two point transformation:
		  • 10000E, 7080N = 744294.62E, 6996202.93N
		  • 10000E, 8560N = 743940.53E, 6997640.12N
		• A Wilsons surface topography DTM was acquired with the purchase of the Project from Apex. The origin of the DTM is unclear, but accurately surveyed drill hole collar RLs agree closely with the DTM.

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.	• The drilling density is on a nominal 40m by 40m spacing through the majority of the deposit. This spacing is sufficient to give strong geological and mineralogical confidence in the style of the deposit being estimated. • Sample compositing to 1m intervals has been completed to try and represent selective mining units that would be typical in an underground environment.
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	• All drilling has been completed roughly perpendicular to the main strike of the deposit geometry and at angle to intercept mineralisation as close to perpendicular as possible. • No sampling bias is apparent from the direction of drilling.

Criteria	JORC Code explanation	Commentary
	orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	
Sample security	• The measures taken to ensure sample security.	• Samples were kept secure on site until dispatched direct to the ALS laboratory in Perth.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• All sampling techniques were by accepted industry standards. No audits or reviews have been undertaken.

Section 3 - Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	• Data is collected in excel templates and imported into Panoramic's SQL database using Datashed import and validation software to ensure appropriate values are being imported into correct fields. All geological and assay information is printed on hard copy plans and visually validated against original logs and assay results to ensure the digital copy agrees with the original format. • Data validation is completed internally in SQL by setting allowable and expected values. Automated queries are run as the data is imported to ensure it meets specified criteria.
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.	• The author has visited the site previously, though not specifically for this round of work. Panoramic staff managed the 2013 drilling program and were integral in the development of the geological model and mineralisation interpretations.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • The factors affecting continuity both of grade and geology.	• There is high confidence in the geological understanding of the deposit. There is a strong relationship between grade and logged alteration. The gold mineralisation is of a consistent grade and 1m composites of the mineralised zone indicate a very good, low coefficient of variation of < 1.1. • The data used for the resource estimate was from RC and diamond drilling. Raw assays were composited to 1m to provide equal sample weights. Short composites were normalised to 1m via accumulation with grade value. • No alternative interpretations were considered. • The geological controls relate strongly with the mineralisation interpretation. The deposit is essentially strata hosted within a shear zone (Wilsons shear) adjacent to the contact with a dolerite sill (Wilsons Dolerite). • Geological and grade continuity is strong within the Wilsons shear.
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 greater Wilsons mineralisation is approximately 0.6km long and has a down dip extent of >700m (open at depth). The deposit consists of a main lode containing three distinct shoots (Wilsons 1, 2 & 3) that vary between 1m and 12m thick. Wilsons 1 contains several footwall lodes.
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	• Grade estimation of the Wilsons deposit was completed using Ordinary kriging (OK) in Surpac software. Variogram analysis and modelling was completed using supervisor software. 1m composites were generated from the drill hole database and then tagged according to mineralized wireframes generated at a 1g/t lower gold grade for low grade domains and 2g/t gold grade for high grade domains. The wireframe modelling conditions included, minimum down hole width of 1 meters of mineralisation, internal dilution of up to 2m down hole could be included if the entire intercept graded above 1 or 2g/t respectively. If dilution was greater than 2m then separate lodes were generated. • The coded composites were reviewed in supervisor; top cut analysis was completed using disintegration analysis and use of coefficient of variation. Domain grades were top cut. The cut dataset was then log transformed to review variograms and generate variomodels. Variomodels generated confirmed geological continuity. The variomodel had a moderate nugget with range of maximum continuity along main axis of 234m. • A previous estimate of the Wilsons deposit was completed in 2008.

Criteria	JORC Code explanation	Commentary
	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 (eg sulphur for acid mine drainage characterisation). • In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. • Any assumptions behind modelling of selective mining units. • Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource estimates. • Discussion of basis for using or not using grade cutting or capping. • The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	This was used as a guide and comparative tool for validation purposes with the current estimate. • No assumptions have been made about gold grade recovery or the recovery of related by-products. • Other elements including S and As have been estimated where data was present. Only recent 2013 drilling has results relating to these elements and as such the estimates of the elements are considered to be of low confidence. • The block model was constructed with a parent cell size of 20m Y 5m X and 5m Z with sub-celling to 5m Y 1.25m X and 1.25m Z. All estimation is completed at the parent cell resolution. Data spacing is typically on 20m sections. Drill spacing within sections is typically 40m. The size of the search ellipse was based on the variography with 2 estimation passes used to populate cells. The first estimation pass utilised a minimum of 4 samples and maximum of 16 samples with 4 octants of the ellipse requiring data to allow estimation. • The composites were generated at 1m down hole and the ore wireframes were maintained at a minimum width of 1m down hole to try and represent a minimum selectable size assuming narrow vein underground mining operations. • No correlations between grade variables have been assumed. • The geology of the deposit consists of a sheared mafic metasedimentary unit adjacent to a dolerite sill. The mineralisation interpretation is consistent with a shear zone in the metasedimentary unit. • Top cut analysis was completed using disintegration analysis and use of coefficient of variation. Estimates were generated using cut and uncut grades to demonstrate the influence of outliers. • Validation of the resource estimate was completed by visual validation of block grades versus drill hole assays in sectional view on computer. Line graphs were generated to show comparison between composite input grades and output block grades over 20m RL intervals through the entire deposit to ensure the composite data was being accurately reflected in the model. The model was also compared with historical estimate to ensure report figures were reasonable.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• The tonnages are reported as dry tonnes. Sample preparation process involves drying the sample for 8hrs prior to analysis.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• The mineralisation wireframes were modelled on a gold lower grade cut-off of 1g/t and 2g/t. These values were determined by visual assessment of grade continuity in Surpac^{TM}.
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 Wilsons Resource has been modelled under the assumption that it will be mined by narrow vein underground methods. This would typically involve some configuration of open stoping to extract down to 1 or 1.5m wide mineralisation. Mineralisation wireframes were constructed based on minimum thickness of 1m downhole intercepts to resolve smallest possible mining selectivity.
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.	• Assumptions based on typical metallurgical recoveries for a deposit such as Wilsons have not been made in respect to the generation of this Mineral Resource estimate. • Metallurgical assumptions (based on test-work results) will be applied during the mine planning and conversion of resource to ore reserve stage of the Project BFS.
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	• No material environmental concerns have been identified. Wilsons is located on a brownfields site with existing environmental disturbance.

Criteria	JORC Code explanation	Commentary
	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.	
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.	• Bulk density (BD) determinations have been completed on core samples by Archimedes water immersion method to determine BD of in-situ material. A total of 3,553 BD determinations are recorded in the Wilsons database, 1,140 historic and 2,413 by Panoramic. • The host rock type for mineralisation and surrounding mafic material is non-porous and void-space porosity is not considered to be of relevance to the measurements. • An average BD for each of the main lithological rock types was calculated using the recorded measurements. The assay table in the database was tagged with the actual BD or the average value based on rock type grouped averages. The density value was then extracted with the gold grade in the 2m composite file and composited based on the underlying rock type. The densities were then estimated using the Variogram models and search parameters for the gold waste domains. Average fresh rock density was calculated as 2.92g/cm³, oxide and transitional materials were assigned values of 2.00g/cm³ and 2.30g/cm³ respectively.
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• The classification of the Resource has been based on strong geological confidence with 40m*40m spaced RC and diamond drilling. Gold mineralisation is highly continuous over its strike length and is effectively strata bound. • All appropriate data and factors have been addressed and taken into account for this estimate. • The Mineral Resource reflects the Competent Person's view of the deposit
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• This work has been peer reviewed by BMGS personnel other than the author.
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 resource classification is based on standard practices and guidelines as prescribed in the 2012 JORC Code. • The resource estimate relates to a global estimate of tonnes and grade. • Good correlation exists between the estimated resources constrained within the historical Wilsons 1, 2 & 3 open pits and production data for the same volume.