ASX ANNOUNCEMENT AND MEDIA RELEASE

7 November 2016

4 MILLION OUNCE MAIDEN RESOURCE AT NAMDINI

Cardinal Resources Limited (ASX: **CDV**) **("Cardinal"** or **"the Company**") is pleased to announce the **maiden resource estimate** for Namdini and results of the **Phase 1, single hole**, **metallurgical testwork programme.**

Highlights

- **Maiden JORC Resource of circa 4 Million ounces gold**
- **Significant scope remains to expand the Resource with further drilling. The deposit remains open at depth and along strike**
- **4 diamond rigs drilling on site operating 24/7, with a focus on both increasing the drill density of the maiden resource, plus extensional drilling to grow the resource**
- **Preliminary metallurgical test work completed, with further test work continuing to determine an optimal process route.**

Commenting on the resource, Cardinal Resources Managing Director Archie Koimtsidis:
"The Namdini maiden resource and the initial metallurgical results represent a major milestone for Cardinal and highlights the outstanding potential of the Namdini deposit, which remains open at depth and along strike.

"With the first 4Moz now defined our aggressive drilling efforts will continue, with exploration around the existing resource already underway. Furthermore, we have four drill rigs onsite operating 24/7 to increase the size and confidence within the current resource.

"Namdini is well located for future development and the project receives strong government and local landowner support."

RESOURCE ESTIMATE

Table 1 summarises the Mineral Resources at Namdini.

Table 1*

Namdini Gold Deposit

Grade-Tonnage Report – Multiple Indicator Kriging with a Change Support Selective Mining Unit (5mE by 10mN by 5mRL)

Classified in accordance with JORC 2012*

Lower cut off grade (g/t)	Million Tonnes (mt)	Average Grade (Au g/t)	Million ounces (Au moz)
Indicated + Inferred Resources			
0.3	123.0	1.1	4.2
0.4	**110.0**	**1.2**	**4.1**
0.5	96.1	1.3	3.9
0.6	82.3	1.4	3.6
Indicated Resources			
0.3	8.28	1.00	0.27
0.4	**7.20**	**1.10**	**0.25**
0.5	6.22	1.20	0.24
0.6	5.35	1.30	0.22
Inferred Resources			
0.3	114.7	1.1	3.9
0.4	**102.8**	**1.2**	**3.8**
0.5	89.9	1.3	3.6
0.6	77.0	1.4	3.4

* Mineral resources are not ore reserves and do not have demonstrated economic viability. All figures in Table 1 have been rounded to reflect the relative accuracy of the estimates. For the assessment of reasonable prospects of economic extraction, mineral resources have been assessed using Lerchs-Grossman pit optimisation, based on a gold price of US$1,550/oz, and the following key input parameters: mill-flotation-concentrate regrind-CIL process route with metallurgical recovery of 0% for oxidized mineralisation (estimate only), 50% for transitional mineralisation (estimate only), 75% for fresh mineralisation; assuming a bulk mining, low to moderate mining selectivity open pit operation with operating costs appropriate for West Africa. Depending on key parameters such as gold price, annual throughput, process plant recoveries and operating costs, cut off grades are likely to be in the range 0.3g/t to 0.6g/t.

The internal pit optimisation has demonstrated that the reported resource has reasonable prospects for economic extraction.

Figure 1 shows a perspective view of the 0.4g/t block model grade shell and the 'reasonable prospects of economic extraction' pit optimisation pit shell. Figure 2 (Section L) and Figure 3 (Section N) display representative cross sections through the MIK block model, along with 10

metre drill hole composites of the gold assay data, while Figure 4 displays a 'long section', looking East, through the MIK block model. The figures show the 'reasonable prospects of economic extraction' pit shell.

Figures 2 to 4 indicate that the deposit is open at depth and along strike. As a result, a multi-rig drill programme has been developed and initiated to carry out 'extension' drilling, both 'up dip', 'down dip' and to the North and South of the currently defined deposit. Further details of the planned programme will be included in a forthcoming release to the ASX.

Colour coding in Figures 2 to 4 is based on gold grade as follows:

- Less than 0.3g/t: Grey (for drill holes), not displayed for the MIK block model.
- 0.3g/t to 0.6g/t: Blue
- 0.6g/t to 0.8g/t: Green
- 0.8g/t to 1.0g/t: Orange
- 1.0g/t to 2.0g/t: Red
- Greater than 2.0g/t: Magenta

Figure 5 displays a long section, looking East, with the JORC resource categories.

Figure 6 shows the MIK block model with blocks returning 0.4g/t Au or higher colour-coded red along with the 'reasonable prospects of economic extraction' pit shell and displays a cross section (Section I), a level plan (120mRL) and a long section looking east. The wide zones of continuous gold mineralisation above a cut off grade of 0.4g/t Au are clearly evident.

Table 2 summarises the percentage proportion of tonnes and contained gold, subdivided by lithology. It is evident that the gold mineralisation within the currently defined Namdini deposit is dominated by metavolcanics, followed by granite and then diorite.

Table 2
Namdini Deposit
Grade-Tonnage Report – Multiple Indicator Kriging with a Change Support
Selective Mining Unit (5mE by 10mN by 5mRL)
Mineralised lithology proportions of tonnes and contained gold

Cut off grade (g/t Au)	Tonnes			Contained Gold		
	Metavolcanics	Granite	Diorite	Metavolcanics	Granite	Diorite
0.3	57%	30%	13%	60%	28%	12%
0.4	57%	31%	12%	61%	28%	12%
0.5	57%	30%	12%	61%	27%	11%
0,6	58%	30%	12%	61%	27%	11%

* Note percentages may not total 100% due to rounding (metasediments less than 1%)

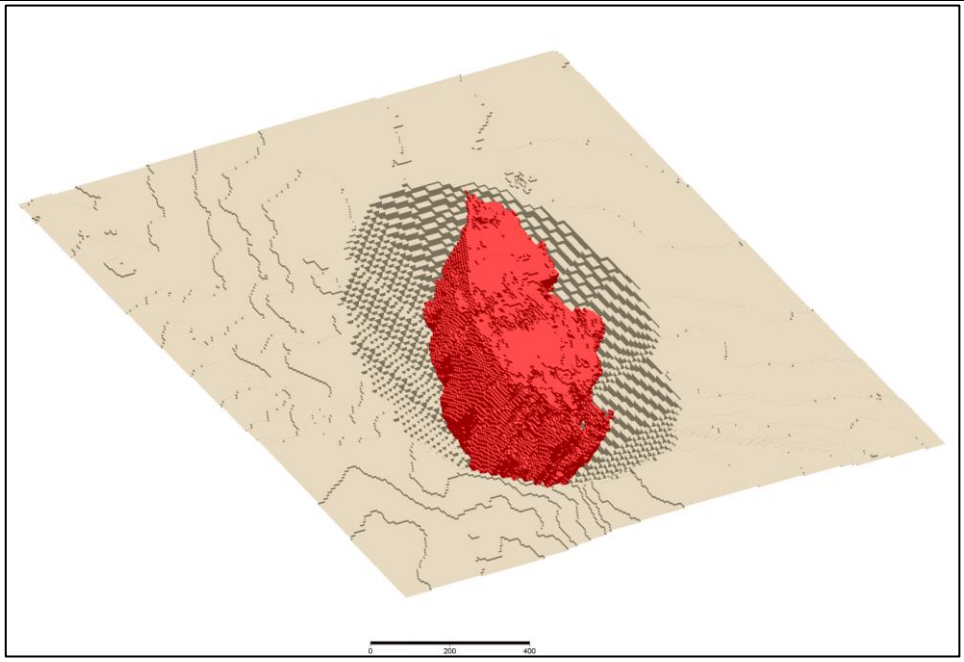

Figure 1: Perspective view of the 0.4g/t Au grade shell
View Towards Northeast
400m scale bar

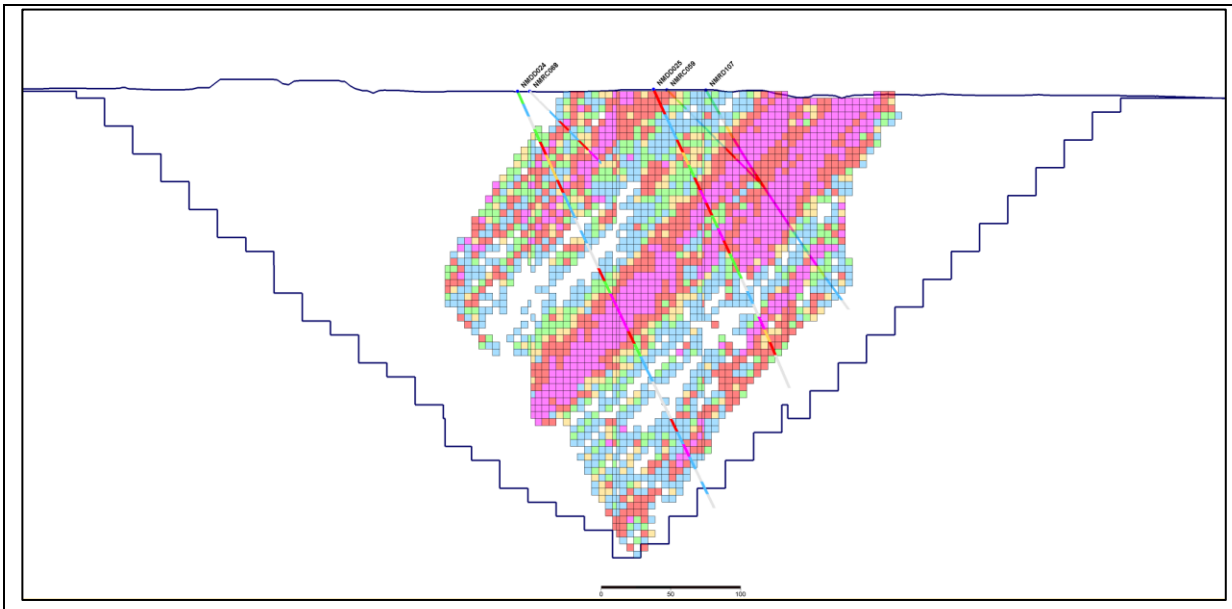

Figure 2: Typical cross section (Section L) through the MIK resource model and 10m drill composites: Au g/t
100m scale bar

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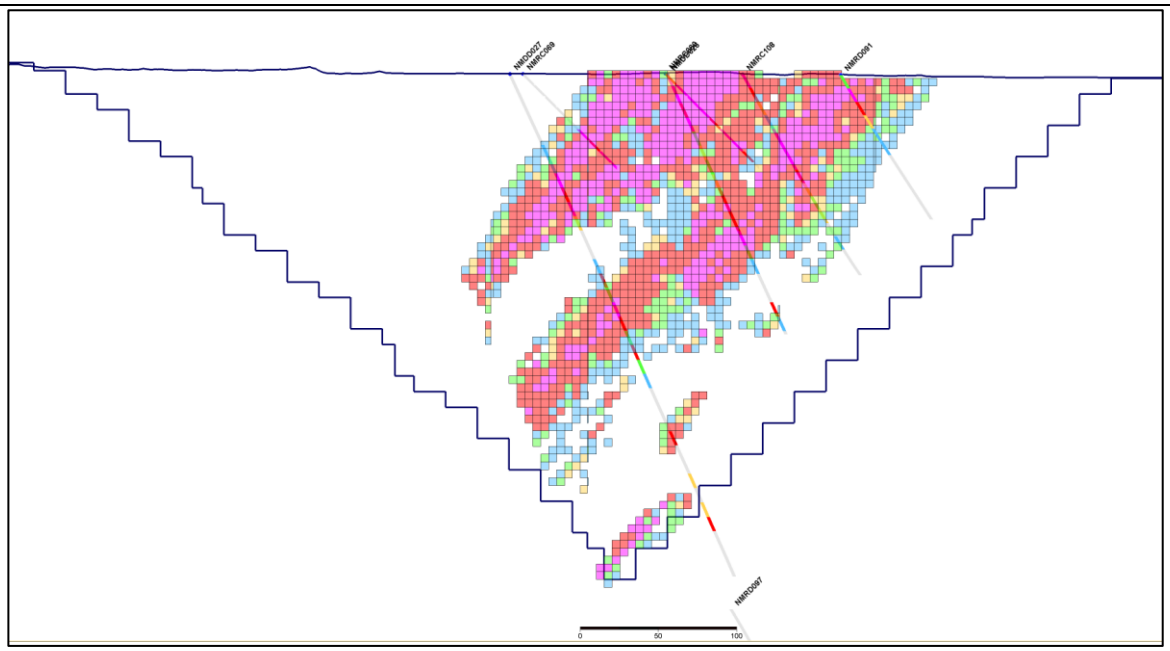

Figure 3: Typical cross section (Section N) through the MIK resource model and 10m drill composites: Au g/t
100m scale bar

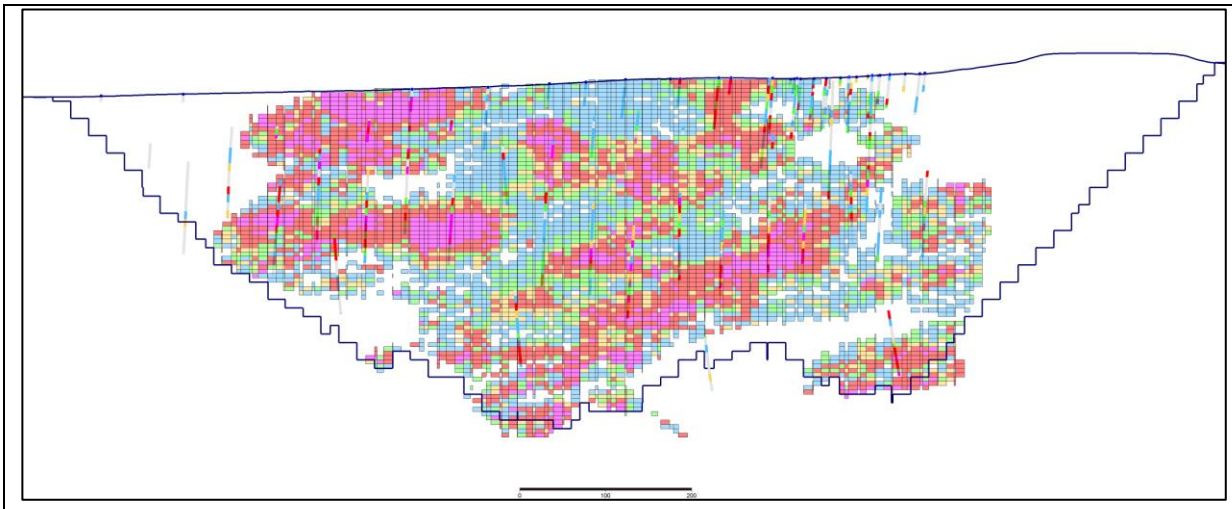

Figure 4: Long section (looking east) through the MIK resource model and 10m drill composites: Au g/t
200m scale bar

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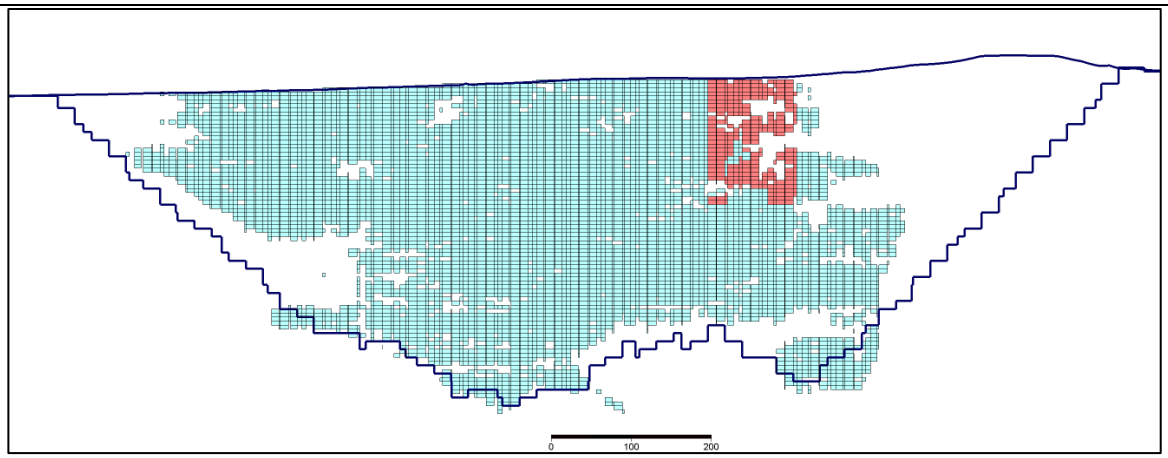

Figure 5: Long section (looking east) with JORC resource categories
(Indicated Resource: Red, Inferred Resource: Blue)
Scale Bar: 200m

The following information summarises key parameters relating to the resource estimation (the Orefind structural and geological modelling study report and the EGRM Pty Ltd resource estimation report will be available on the Cardinal Resources website):

- Geological and structural modelling: Logging, interpretation and modelling were undertaken by Cardinal Resources' technical staff and specialist consultants Orefind Pty Ltd, resulting in a three-dimensional model of key lithologies and weathering zones.
- Survey Control: A detailed topographic survey was completed. Drill hole collars were surveyed using differential GPS (DGPS), with down hole surveys taken at 30m intervals using electronic 'multi-shot' equipment.
- Bulk density data: Bulk densities are routinely measured as part of the exploration data acquisition protocols. The bulk density database for resource estimate comprised 1,395 measurements. Statistical analysis was undertaken on the bulk density data and a matrix of bulk densities were applied based on lithology and weathering zone. The great majority of the Namdini deposit is fresh bedrock. Bulk densities vary from 1.80 tonnes per cubic metre (t/cm) for strongly weathered rock to 2.73 t/cm (for Granite) and 2.82-2.83 t/cm (for metavolcanics, diorite and metasediments).
- Grade Estimation: Following detailed statistical and geostatistical analysis, including the application of 15g/t upper cut to 3m down hole composites, grade estimation was undertaken using MIK with a change of support to produce a selective mining model. Block model development is based on a 'parent' block size of 20mE by 50mN by 10mRL, with 'sub-celling' to the selective mining unit (SMU) block size of 5mE by 10mN by 5mRL. The majority of categorised blocks were estimated in three passes. In addition, blocks in excess of 75m from data were excluded from resource reporting. Validation of the MIK model was undertaken visually and statistically.

- Conditional Simulation Study: A conditional simulation study was undertaken on the area of close-spaced drilling at the southern end of the Namdini deposit for both grade estimation validation purposes and for additional SMU selectivity sensitivity studies.
- Resource Classification and Mineral Resource Reporting: The Namdini resource has been classified in accordance with the guidelines set out in the 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code'). The assessment of confidence levels of the key categorization criteria including the confidence of the resource development data, the geological interpretation, the drilling density and grade estimation confidence has been undertaken and is summarised in Appendix 1.

  Based on the assessment of the key criteria and using a 0.2g/t indicator cut off boundary for reporting purposes, the Namdini deposit has been categorised as a combination of Indicated and Inferred Resources, as summarised in Table 1. In summary, blocks estimated based on an approximate 20mE by 20mN drill spacing have been classified as an Indicated Resource. Those blocks not classified as an Indicated Resource but estimated with acceptable confidence and within 75m of drilling data are considered an Inferred Resource.

The resource estimation report from EGRM Consulting (Perth, Australia) will be lodged on the Cardinal Resources website in due course.

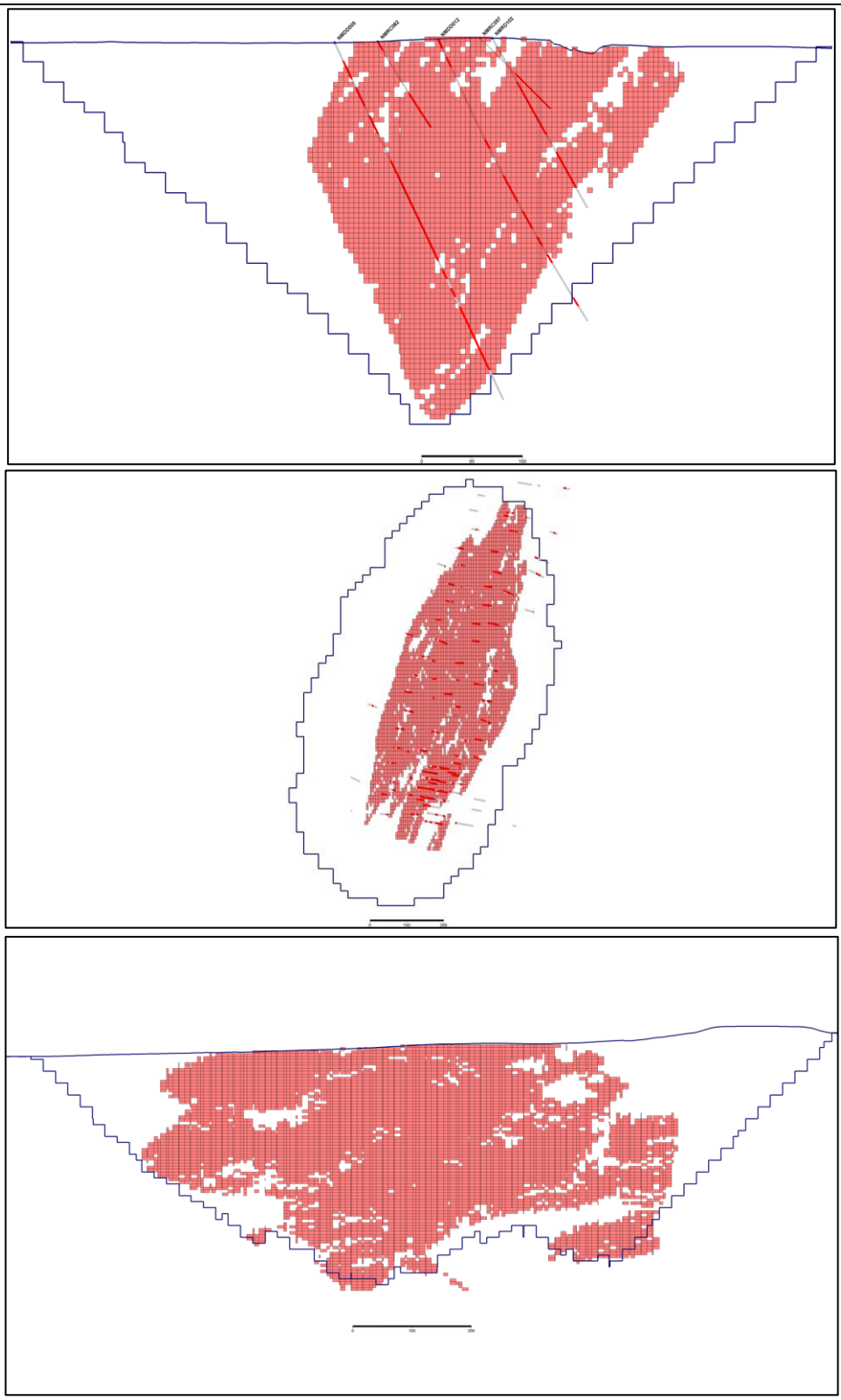

Figure 6: Cross Section (Line I), Plan (120mRL) and Long Section (Looking East) >0.4g/t Au cut off blocks highlighted. Scale Bars: 100m, 200m & 200m respectively

METALLURGICAL TESTWORK SUMMARY

Suntech Geomet Laboratories (Suntech), based in Johannesburg, South Africa have been contracted to carry out a range of metallurgical testwork on a 332 kilogram composite sample of quarter HQ diamond drill core obtained from drill hole NMDD005 (original hole code NMDD422-736), which includes carefully weighted proportions of metavolcanics, granite and diorite. The individual components were used to make a master composite (MC) which grades 1.42g/t and 1.1% sulphur. Figure 7 shows the location of hole NMDD005 relative to the current Namdini drilling.

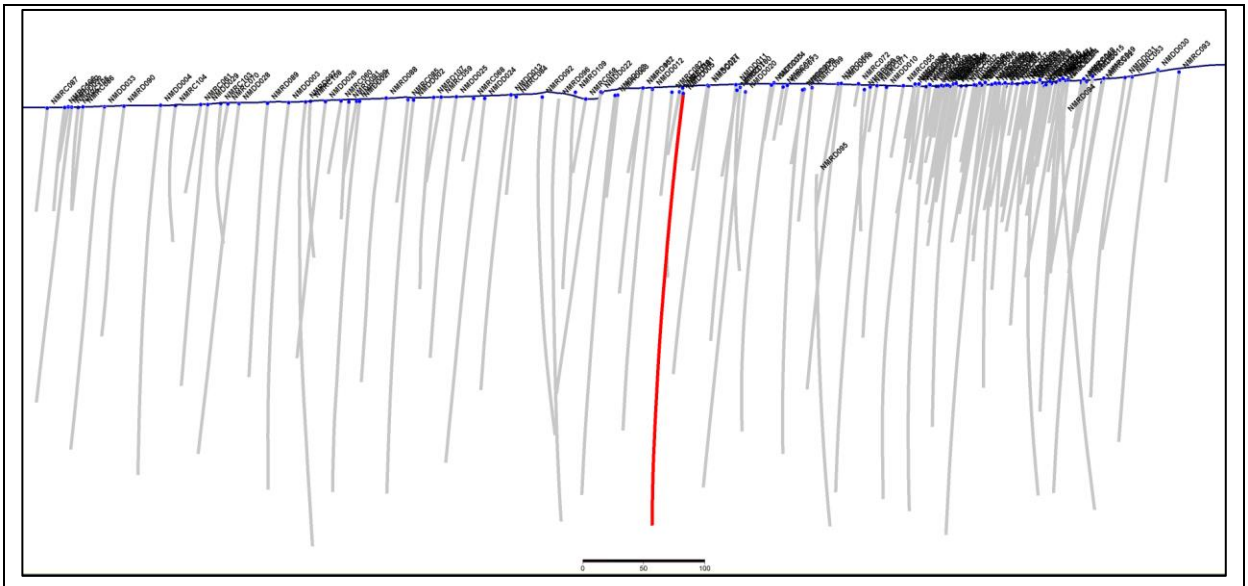

Figure 7: Location of NMDD005 (red) relative to the current Namdini drilling
Scale bar: 100m

<u>Scope of the metallurgical testwork</u>

The main aims of the testwork programme were as follows:

- To characterize the occurrence, and confirm the association, of the gold mineralisation
- The amenability of gold recovery to a range of extraction methods on both the 'run of mine' (ROM) mineralisation and flotation concentrate.
- To confirm the process route best suited to treating the constituent ores types present – whole ore leaching, or 'pre-concentration' with subsequent leaching on a smaller weight of concentrate
- To determine the acceptable coarsest grind for optimal recovery of gold for the 'pre-concentration' flowsheet, to determine the best reagent suite for optimal recovery and upgrading of gold into a concentrate suitable for further processing.
- To determine the mineralogical characteristics of the gold mineralisation and concentrate associations using QEMSCAN (quantitative electron microscopy) and diagnostic leach evaluation.

The metallurgical report from Suntech Geomet Laboratories (South Africa) will be available on the Cardinal Resources website.

Metallurgical testwork results

Key metallurgical testwork results are summarised below:

- Comminution Testwork: The Bond Ball Work Index (BBWI) for the MC is 14.9 kWh/t. SAG Power Index (SPI) tests were carried out on the individual lithologies and the MC. The SPI tests can be used to predict throughputs for SAG/AG mills and in the determination of power requirements. SPI values of 8.83 to 9.57 kWh/t indicate moderate comminution characteristics.
- Mineralogical Characterisation: Mineralogical characterisation of the MC and sulphide concentrate used polished sections. The bulk of the gold grains in the MC and the sulphide concentrate are fine grained (88.7% of the gold grains in the MC less than 9.6 microns and 68.3% in the sulphide concentrate). In the sulphide concentrate, gold is dominantly associated with pyrite.
- Diagnostics Leach Tests: Diagnostic leach tests were carried out on the MC and a final flotation concentrate. Table 3 summarises the results of the diagnostic leach tests.

Table 3
Diagnostic leach tests

Test	Au association/Solubilisation process	Percentage Recovery	
		Master Composite	Flotation Concentrate
1	Free milling (CIP – no carbon)	61.3	66.7
2	Total free milling + preg-robbed Au (CIL)	64.1	67.8
3	Au extracted by mild oxidized pre-leach (Au associated with pyrrhotite, calcite, dolomite and hematite)	8.0	3.0
4	Au extracted by severe oxidative pre-leach (Au associated with pyrite, arsenopyrite etc)	27.3	19.0
5	Au extracted by complete oxidation (Au associated with kerogen)	0.0	1.4
6	Undissolved gold (Au assumed to be associated with quartz)	0.6	8.7
	Total	100.0	100.0

- Grind optimisation: Grind optimisation tests on the MC indicated that a p80 -75 microns is the optimum grind size.
- Whole rock – individual variability cyanidation tests: Variability cyanidation tests (24/48 hour tests on notional p80 -75 microns material) on the individual lithologies indicated that the diorites returned the highest recovery (p87.5% - 75 microns, recovery 70.4%) followed by the metavolcanics (p89.1% -75 microns, recovery 63.8%) and the granites (p66.3% -75 microns, 49,1%). It is noted that the size reduction based on the MC

milling calibration tests, resulted in the granite undergoing less particle size reduction compared to the metavolcanics and diorite, which could explain the lower gold recovery in the granite compared to the other two lithologies. Further testwork is planned.

- Flotation Testwork:
  - Reagent scouting tests: 15 reagent scouting tests (at a p80 -75 microns) indicated that the optimum reagent combination produced a cleaner concentrate with a 'mass pull' of 2.2% of the original mass, a gold grade of 53.6g/t and 89.2% gold recovery. Rougher gold recoveries above 90% were achieved in 12 out of 15 of the 'scouting' tests, with 9 returning 92% to 96%.
  - Flotation rate test: A flotation rate test on the MC exhibited fast flotation characteristics with very efficient mass pulls, with approximately 82% of the total Au recovered into a 3.2% mass within the first 3 minutes of flotation. All three lithologies exhibited good flotation response.
  - Variability flotation tests: All three lithologies exhibited good flotation responses with 83.5% Au/95% S, 81.7% Au/93.8% S and 90.4% Au/98.9% S of the gold and sulphur recovered into the flotation concentrate, from the volcaniclastics, granite and diorite respectively.
  - Grind optimisation flotation tests: Flotation tests were carried out for 5 grind sizes (212 to 53 microns). Best recoveries (to cleaner concentrate) were obtained for p80 -75 microns (89.2% Au recovery for 53.6g/t flotation concentrate grade).
  - Gold dissolution tests on flotation products: CIL tests on the grind optimisation tests rougher tails show that a p80 of -75 microns returned the highest recovery.
  - Cyanidation of concentrate after ultra-fine milling: Ultra-fine milling (UFG) produced significant improvements in overall recovery compared to the gold recoveries from the flotation concentrate 'as received' (p80 -109 microns, 68% Au recovery). At a p80 of -22 microns the gold recovery improved to 77.9% whilst at a p80 of -15 microns the gold recovery was 80.2%. As such, overall concentrate recoveries of approximately 80% have been produced from cyanide leaching UFG concentrates. Further tests will be undertaken with the addition of leach accelerants to optimize conditions.

Current potential metallurgical flowsheet

Based on the metallurgical testwork carried out to date, along with generic capital and operating cost ranking of the flowsheets considered, and acknowledging that it is taken from only one drill hole within the one kilometer long Namdini deposit, with an aim to produce gold dore on site, the pre-concentration and concentrate leach process flowsheet shows good potential (mill-flotation-concentrate regrind-CIL) with overall gold recoveries of 75% to 76%.

Other options that will be considered include roasting of sulphides (which has achieved 86% to 87% gold recovery from concentrates) or the biological degradation of sulphides (BIOX), which is targeted to produce higher recoveries than roasting, or the production of a high sulphur, gold-rich concentrate for transport and sale to smelters.

Significant additional metallurgical testwork is planned.

Future metallurgical testwork

An additional metallurgical 'scan' sampling and analytical programme is currently underway, based on the production of notional 10m down hole composites using quarter HQ core sample coarse reject material. Approximately 940 ten metre 2.5kg composites, representing approximately 9.4km of diamond drilling (with an estimated total mass of 2,350 kg) are being produced using a composite cut off grade of 0.1g/t Au. The composites will used as the sample source for the following analyses:

- 2kg 24-hour cyanidation bottle roll with duplicate 50gm fire assays on the washed leach reside material.
- LECO furnace analyses of total sulphur and total carbon.
- Inductively couple plasma (ICP) analysis of 49 elements using the ICP-OES and ICP-MS techniques.

The aim of the programme is to produce a three-dimensional multi-element model of the Namdini deposit, along with initial cyanidation leach characteristics, sulphur and carbon contents in order to guide the next phase of metallurgical testwork, which will begin immediately on receipt of the 'scan sampling' programme results.

Competent Person's Statement

Information in this release, which relates to the resource estimation of the Namdini deposit is based on the work of Brett Gossage, MAusIMM, who has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and the activities being reported upon to qualify as a Competent Person, as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Gossage consents to the inclusion in this report of the statements based on the information in the form and context in which it appears

Information in this release that relates to the Namdini Project is based on the results of the Metallurgical Testwork program undertaken at SunTech Laboratories, Johannesburg, South Africa. The work has been monitored on behalf of Cardinal Resources by Simon Meik, FAusIMM CP (No. 106146), who has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and the activities being reported upon to qualify as a Competent Person, as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Meik consents to the inclusion in this report of the statements based on the information in the form and context in which it appears

The overall release has been compiled and the 'reasonable prospects of economic extraction' pit optimisation, has been carried out by Dr Julian F. H. Barnes, FAusIMM, MAIG, Technical Manager of Cardinal Resources, who has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and the activities being reported upon to qualify as a Competent Person, as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Barnes consents to the inclusion in this report of the statements based on the information in the form and context in which it appears.

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No verification

Although all reasonable care has been undertaken to ensure that the facts and opinions given in this Announcement are accurate, the information provided in this Announcement (including information derived from publicly available sources) may not been independently verified.

APPENDIX 1

JORC Code, 2012 Edition – Table 1 report template

Please refer to Cardinal Resources Press Release 16 August 2016 for full details of Section 1 (Sampling Techniques and Data).

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.*	All geological and field data is entered using data-loggers and software developed by Maxwell GeoServices, that includes lookup tables and fixed formatting (and protected from modification) thus only allowing data to be entered using the Cardinal geological code system and sample protocol. Data is then loaded to the Datashed database, which was managed by consultants Maxwell GeoServices with access on site for the Cardinal database personnel. Caedinal technical personnel validated the database using Micromine software. The Datashed database is then reviewed against the original logging spreadsheets and the assay data checked against the supplied assay certificates.
	Data validation procedures used.	Following importation the data goes through a series of digital checks for duplication and non-conformity, followed by manual validation by the relevant project geologist who manually checks the collar, survey, assay and geology for errors against the original field data and final paper copies of the assays. The process is documented, including the recording of holes checked, errors found, corrections made and the date of database update.

Criteria	JORC Code explanation	Commentary
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	Brett Gossage, Principal for EGRM Consulting Pty Ltd, completed a site visit in July 2016 to review the exploration procedures. Limited drilling was being completed but appeared to be completed in an appropriate manner. Sampling protocols observed were considered to meet high industry standards. The site visit included the reviewing of geological logging and supervising independent check assaying. The check assaying confirmed the location and tenor of the assaying contained within the database. The geological logging was found to be consistent and no material issues noted. The drillhole collar survey could be confirmed by check handheld GPS survey with the drillhole collars well maintained. In addition to the site visit observations, the majority of assay data (>90%) were checked against the original laboratory supplied assay certificates.
	If no site visits have been undertaken indicate why this is the case.	Not applicable.
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	The confidence in the geological interpretation is high although infill drilling is required and additional geological work is required to improve the model locally once additional data is acquired. A model of the lithology and weathering was generated prior to the mineralisation domain interpretation commencing. This work was completed based a programme of logging and mapping, and structural interpretation by independent geological consultants OreFind.

Criteria	JORC Code explanation	Commentary
		Mineralisation at the Namdini project area is developed in both the meta-volcano-sedimentary rocks and tonalite. The tonalite has been extensively mined by artisanal miners, with lesser amount of artisanal activity in the volcano-sedimentary units. In all rock types the mineralisation is accompanied by visible disseminated sulphides of pyrite and arsenopyrite in both the veins and wall rocks. In diamond core the mineralized zones are visually distinctive due to the presence of mm- to cm-width quartz-carbonate veins that are commonly folded and that possess yellow-brown sericite-carbonate selvedges. Gold as primarily associated with sulphides, in particular pyrite where it commonly occurs as inclusions and on the crystal margins. Gold was also noted in phyllite matrix and, to a much lesser extent, in association with ilmenite. While visible gold is rare, identified examples occurred in strongly altered granite and were associated with silica-sericite shears that had sub-mm widths. Based on these observations, and geological interpretations, a broad (0.1gt Au) low grade mineralisation package was developed. The mineralisation constraint was traceable at low grades for overall 1000m and is up to 300m wide. The mineralisation dips approximately 55° to 60° towards the west.
	Nature of the data used and of any assumptions made.	The geological data used to construct the geological model includes regional and surface mapping and logging of RC and diamond core drilling. A nominal 0.1g/t Au lower cut-off grade was applied to the mineralisation model.

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	The effect, if any, of alternative interpretations on Mineral Resource estimation.	The geology of the deposit is relatively simple, and the interpretation is considered robust. There is no apparent alternative to the interpretation in the company's opinion at this point.
	The use of geology in guiding and controlling Mineral Resource estimation.	The mineralisation geometry has a strong relationship with the interpreted alteration and structure. The lithology contacts and the weathering changes do not appear to materially control the mineralisation although the metavolcanics and the tonalite (granite) mineralisation is on average higher grade than the diorite and metasediment mineralisation. Little grade variation is noted between the different weathering groupings. The grade estimate is based on a gold grades and the mineralisation package defined above a 0.1gt Au lower cutoff grade.
	The factors affecting continuity both of grade and geology.	A broad zone of anomalous mineralisation is interpreted. The grade continuity at lower cutoff grades is good, however this grade continuity is materially reduced at higher cutoff grades.
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 approximate dimensions of the deposit are 1100m along strike (N-S), 300m across (E-W), and 400m below surface.
Estimation and modeling 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*	The resource estimate has been generated via Multiple Indicator Kriging (MIK) with a change of support. The MIK estimation was constrained within the 0.1g/t Au mineralisation zone interpretation. MIK is considered an appropriate grade estimation method for Namdini given the high degree of spatial variability of the gold assay data

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	computer software and parameters used.	(relative to the data spacing) present within the mineralisation zones. The grade estimate is based on 3m down-the-hole composites of the resource development drilling data at Namdini. High grade cuts (as described below) have been applied to composites to limit the influence of higher grade data. Detailed statistical and geostatistical investigations have been completed on the captured estimation data set. This includes exploration data analysis, boundary analysis, variography, grade estimation trials and change of support studies. These investigations have been completed on a domain by domain basis. Grade estimation has been completed in multiple estimation passes with expanding sample search radii. A first higher confidence estimate was completed (Indicated Resource where other criteria were met) with sample search radii of 50m x 50m x 30m and a sample search oriented consistent with the major controls interpreted for each estimation domain. Subsequent estimation passes (passes 2 and 3) was generated with expanded sample searches of 50% increase in sample search radii. A maximum of 32 and with a minimum of 16 (passes 1 and 2) and 10 (pass 3) composites have been used in grade estimation. A maximum number of 6 composites from any drillhole have been allowed to estimate a single block. The grade estimation has been generated using a combination of mine planning and specialist geostatistical software packages. Vulcan have been used for geological modelling and block model construction and Isatis for

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		statistical and geostatistical studies and grade estimation.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	No check estimates are available. The estimate has been generated in regions where artisanal mining has been completed, however no records of production are available.
	The assumptions made regarding recovery of by-products.	No by-products are present or modelled.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	No deleterious elements have been estimated to date at Namdini. A metallurgical scan sampling programme based on 10m composites of coarse reject material from HQ quarte core is underway. The composites will be assayed for total sulphur and carbon by LECO furnace, and 49 elements by ICP-OES and ICP-MS and the data will be used to generate a geo-metallurgical model of the Namdini deposit.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	The MIK estimate is based on a block (panel) size of 20m (East) by 50m (North) by 10m (Elevation), which considers the drilling density for the vast majority of the deposit. From the MIK panel estimate, a selective mining unit (SMU) estimate has been generated based on a 5m (East) by 10m (North) and 5m (Elevation) block size. This SMU is

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		based on the envisaged mining practises likely to be employed at Namdini. The MIK SMU has been localised to SMU size blocks for visualisation and mine planning purposes.
	Any assumptions behind modelling of selective mining units.	A selective mining estimate has been generated for the MIK using a change of support targeting a 5m (East) by 10m (North) and 5m (Elevation) SMU. The change of support has been completed using an indirect lognormal correction. The selective mining estimate (MIK) has been compared to a global change of support analysis completed using a discrete gaussian change of support model as part of the validation procedures.
	Any assumptions about correlation between variables.	No correlated variables have been investigated or estimated.
	Description of how the geological interpretation was used to control the resource estimates.	The grade estimate is based on a nominal 0.1g/t Au lower cut-off grade mineralisation constraint. The mineralisation constraint was reviewed based on lithological and weathering interpretations generated but were determined to not control the distribution of the gold mineralisation. The lithology and weathering constraints have been coded to the block model but have been used as soft boundaries with composites searched only based on the grade constraint. Statistical investigations have been completed to test the change in statistical and spatial characteristics of the domains grouped by weathering. This has included boundary analysis to determine the applicability of soft or hard boundaries between the weathering subdivisions. Soft boundaries have been applied between the weathering boundaries within the hard estimation domains.

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	Discussion of basis for using or not using grade cutting or capping.	A review of the high grade composite data captured within the mineralisation constraints was completed to assess the need for high grade cutting (capping). This assessment was completed both statistically and spatially to determine if the high grade data clusters or were isolated. On the basis of the investigation, high grade cuts were applied to the estimation domain. A high grade cut of 15g/t Au for was applied to the 3m composites with 16 data adjusted.
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	The grade estimate was checked against the input resource development drilling/composite data both visually on section (cross and long section) and in plan, and statistically by means of swath plots, global statistically checks and via comparisons with global change of support analysis. No production data is available to review and compare.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The resource tonnage is reported using a dry bulk density and therefore represent dry tonnage excluding moisture content.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	The grade estimate is based on mineralisation constraints which are designed to capture all anomalous mineralisation at a nominal 0.1g/t Au lower cut-off. A further physical constraint was also applied wherein material below a 0.2gt Au mineralisation domain was excluded. The estimation approach produces a selective mining estimate based on the targeted SMU. The model is considered valid for reporting and mine planning at a range of lower cut-off grades up to a lower cut-off grade of 0.6g/t Au.
Mining factors or assumptions	*Assumptions made regarding possible mining methods,*	The resource model assumes open cut mining is

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	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.	completed and a low to moderate level of mining selectivity is achieved in mining. It has been assumed that high quality grade control will be applied to ore/waste delineation processes using RC drilling, or similar, at a nominal spacing of 10m (north – along strike), 10m (east – across strike, and 2m downhole or better, applying a pattern sufficient to ensure adequate coverage of the mineralisation zones.
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.*	An initial metallurgical testwork programme has been undertaken and the results are summarised in this release. The metallurgical recoveries and conceptual operating costs have been incorporated in determine an appropriate range of cut-off grades for estimation and resource reporting purposes.
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*	Environmental baseline surveys are being developed and are planned to be initiated. The area has a low population density and low topographic relief. Proposal for a full EISA study and programme have been requested and are being received from accredited consulting groups.

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	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 values were derived from 1395 measurements taken on the core. Independent laboratory (SGS) completed the testing via water immersion method (PHY04V) with coating used on porous samples. The majority of bulk density data are fresh with 19 oxidised and 107 transition density data collected. The bulk density has been assigned based on a weathering and lithology groupings. Where insufficient bulk density data existed, the density was assumed based on like lithologies and weathering. Strongly weathered bulk density was assumed to be 1.80 tonnes pre cubic metre (t/cm) as a single datum was available.
	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.	Porous oxide and transitional horizon samples have all been measured by external laboratories using an appropriate method with coating to account for void spaces, whereas competent samples have been completed both by the external laboratory and using standard density measurement techniques on site (immersion method, with electronic scales).
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Bulk density has been assigned on the basis of weathering and lithology groupings of the collected data. Where insufficient bulk density data existed, the density was assumed based on like lithologies and weathering. Strongly weathered bulk density was assumed to be 1.80 tonnes pre cubic metre (t/cm). Bulk densities vary from 1.80 t/cm for strongly weathered rock to 2.73 t/cm (for Granite) and 2.83-2.82 t/cm (for metavolcanics, diorite and metasediments).

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Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.*	The grade estimate has been categorised as a combination of Indicated and Inferred Resource based on an extensive review of input data quality, confidence in the geological understanding and modelling, grade estimation parameters and economic parameters (prospect of the resource blocks being economic). The grade estimation parameters include number of data used in the estimate, and distance from drilling data. A cross sectional interpretation was completed using criteria listed above and a wireframe solid produced to capture those blocks that could be considered as Indicated Resource. This was compared against preliminary pit optimisation studies to ensure the selected blocks (indicated and inferred) could be potentially considered economic, prior to block coding being completed based on a combination of the wireframe and grade estimation variables. Based on these factors, high confidence domains that were drilled to a spacing of approximately 20mE x 20mN or better and have been estimated with high confidence grade interpolation (generally estimation pass 1) were considered as Indicated Mineral Resource. Inferred Mineral Resource blocks were estimates not considered Indicated Resource but still within the interpreted mineralisation zone. These blocks were generally estimated with estimation pass 1 or 2 (i.e. within 75m of drilling).

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	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).	As described above, the Mineral Resource classification has been based on the quality of the data collected (geology, survey and assaying data), the density of data, the confidence of the geological model and mineralisation model, and the grade estimation quality.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The reported resource is consistent with the Competent Person's view of the deposit.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	The resource estimate has not been audited by external parties.
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 resource has been classified based on the quality of the data collected, the density of data, the confidence of the geological model and mineralisation model, and the grade estimation quality. This has been applied to a relative confidence based on data density and zone confidence for resource classification. No relative statistical or geostatistical confidence or risk measure has been generated or applied.
	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.	The Mineral Resource is considered to be of sufficient local confidence to allow mine planning studies to be completed. The estimate has been classified as a combination of Indicated and Inferred Resource with the Indicated Resource of a sufficient local confidence to allow optimisation studies and mining scheduling. Statistical checks have been completed to validate the grade estimation has robustly reproduced the grade

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		trends of the drilling data at the scale of the panel estimate. Neighbourhood testing and optimisation has been completed to ensure the grade estimates are of high quality. Change of support analysis has been completed to ensure the grade tonnage is also appropriate for the current mining practises.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	No production data is available to compare the resource block.