

# QUICKSILVER NICKEL-COBALT PROJECT: SIGNIFICANT MAIDEN RESOURCE, WITH UPSIDE

## Highlights:

The Quicksilver Nickel-Cobalt resource estimate exceeds expectation with total Indicated and Inferred Resources of:

**26.3 Mt** @ **0.64% Nickel & 0.04% Cobalt** (cut-off grade >0.5% Ni or >0.05% Co)

incorporating **23.1 Mt** @ **0.68% nickel & 0.04% cobalt** at a cut-off grade of 0.5% nickel; and an additional zone of higher grade cobalt mineralisation of **3.1 Mt** @ **0.35% nickel & 0.08% cobalt** at a cut-off grade of 0.05% cobalt (see Table 1).

- The estimated resource contains a total of approximately 168,500 tonnes of nickel metal and 11,300 tonnes of cobalt metal.
- The resource estimate includes a coherent zone of higher grade nickel-cobalt mineralisation in the northern part of the deposit of:

**4.0 Mt @ 0.98% Nickel & 0.05% Cobalt** (cut-off grade 0.8% Ni)

The Company has identified several areas where further drilling has the potential to extend the known resources, particularly in the southern area where drilling is currently limited and the mineralisation is open.

## **Next Steps:**

- Plan infill and extensional drilling of the resource to extend and upgrade resource.
- Continue metallurgical studies on ore types to optimise potential processing routes.
- Continue other development and technical studies into the deposit, including lithogeochemistry and detailed mineralogy.

The Directors of Golden Mile Resources Ltd (ASX:**G88**, or the Company) are delighted to announce that the Company has completed a maiden resource estimate for the Quicksilver Nickel-Cobalt Project located in the South-West Mineral Field of Western Australia (Figure 1).

The total Mineral Resource (see Table 1) is **26.3 million tonnes grading 0.64% nickel and 0.04% cobalt** (using a cut-off grade >0.5% Ni or >0.05% Co). The estimated resource contains approximately **168,500 tonnes of nickel and 11,300 tonnes of cobalt metal.** 

Commenting on the results of the resource estimate for the Quicksilver Project, Managing Director of the Company, Lachlan Reynolds stated that:

ASX Code: G88

Share Price: \$0.15 (as at 15/11/18)

Market Cap: \$8.7 Million

Shares on Issue: 57,899,977

Options on Issue: 7,925,000

Cash at bank: \$2.2 Million (as at 30/09/18)



The successful completion of the resource estimate for the Quicksilver nickel-cobalt laterite deposit is a significant step forward in the development of this Project and the Company regards the result as a vindication of the management team's efforts on the project to-date.

This resource is better than expected and provides a strong foundation for the Company to grow both the resource size and quality as well build the development strategy.

#### QUICKSILVER NICKEL-COBALT PROJECT

The Quicksilver Project is located near Pingaring in the South-West Mineral Field of Western Australia, approximately 280 km southeast of Perth (Figure 1). The project comprises an exploration license and a prospecting license that collectively cover a total area of 51.13 km<sup>2</sup>. The project is primarily located on privately owned farmland in an area with excellent local infrastructure, including easy access to grid power, sealed roads and a railway line to key ports.



Figure 1: Location map of the Quicksilver Project in the South-West Mineral Field of Western Australia

#### MINERAL RESOURCE ESTIMATE

A Mineral Resource estimate has been completed for the Quicksilver Nickel-Cobalt laterite project, located near Lake Grace in the Southwest Mineral Field of Western Australia.

Nickel ("Ni") and cobalt ("Co") mineralisation is hosted within the weathering profile developed over interpreted Archaean ultramafic rocks, which are within a metamorphosed granite/greenstone sequence. A nickel envelope was interpreted using a 0.4% Ni cut-off. This provided a largely continuous horizon typically 20 m to 50 m in thickness (Figure 1). A distinct zone of cobalt enrichment is also present in the deposit. A cobalt envelope was interpreted using a 0.04% Co cut-off which defined a largely continuous blanket of mineralisation typically 5m to 15m in thickness.



The majority of the cobalt-rich blanket occurs within the upper part of the nickel envelope however in places it extends above the nickel envelope.

The main Garard's prospect has a strike length of 2,000 m and is up to 700 m wide. The majority of mineralisation is within 50 m of surface, with a maximum depth of 105 m. A second zone of nickel enrichment has been delineated over a strike length of 700 m at the Garard's South prospect. This zone remains open to the south.

The deposit was delineated by Golden Mile with air core ("AC"), reverse circulation ("RC") and diamond drilling ("DD") completed in 2017 and 2018. The Mineral Resource is defined by a total of 111 drill holes for 9,048 m.

The Mineral Resources have been classified as Indicated and Inferred Mineral Resources in accordance with the JORC Code, 2012 Edition and are shown in Table 1. This table represents the total deposit and is reported using a cut-off grade of > 0.5% Ni or > 0.05% Co.

Table 1: Quicksilver November 2018 Mineral Resource estimate (>0.5% Ni or >0.05% Co cut-off)

Ni Domain	Class	Tonnes	Ni	Со	Ni Metal	Co Metal
NI DOMAIN	CldSS	Mt 9		%	Tonnes	Tonnes
High Ni	Indicated	4.1	0.75	0.047	30,600	1,900
>0.5% Ni	Inferred	19.0	0.67	0.037	126,800	7,000
	Sub Total	23.1	0.68	0.039	157,300	9,000
Low Ni, High Co	Indicated	0.3	0.42	0.077	1,300	200
<0.5% Ni, >0.05% Co	Inferred	2.8	0.35	0.075	10,000	2,100
	Sub Total	3.1	0.35	0.076	11,100	2,400
Total	Indicated	4.4	0.72	0.049	31,900	2,100
>0.5% Ni or >0.05% Co	Inferred	21.9	0.63	0.042	136,600	9,100
	Sub Total	26.3	0.64	0.043	168,500	11,300

(Rounding discrepancies may occur in summary tables)

#### RESOURCE SUMMARY - QUICKSILVER NICKEL-COBALT DEPOSIT

#### Geology

Nickel and cobalt mineralisation is hosted within the weathering profile developed over interpreted Archaean ultramafic rocks, which are within a metamorphosed granite/greenstone sequence. Elevated nickel and cobalt values are due to the mobilisation and enrichment of those metals as they are released from silicate minerals during the weathering process.

As with most Western Australian nickel laterite deposits, distinct geochemical zonation occurs through the weathering profile. At Quicksilver, four horizons have been interpreted – a Mixed Zone with elevated aluminium overlies Upper Saprolite with elevated iron and low magnesium, a Lower Saprolite zone with low iron and low aluminium, and a basal Saprock zone with highly elevated magnesium.



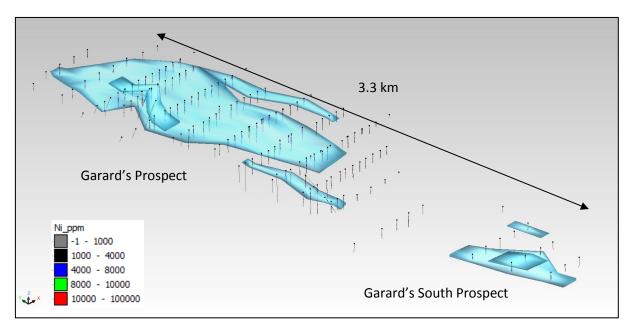


Figure 2: Oblique 3D view of the Quicksilver Ni-Co deposit showing the 0.4% nickel envelope (view to the northeast). Drill holes coloured by Ni%.

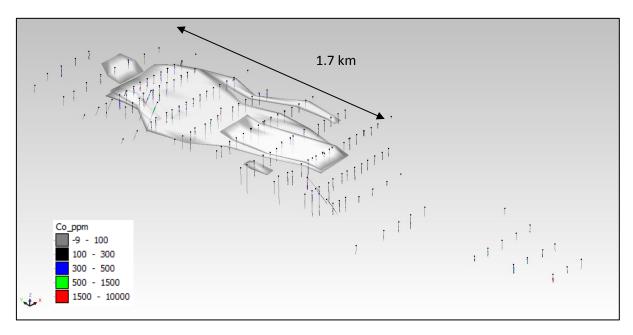


Figure 3: Oblique 3D view of the Quicksilver Ni-Co deposit showing the 0.04% cobalt envelope (view to the northeast). Drill holes coloured by Co%.

### **Drilling**

The Quicksilver deposit has been delineated by Golden Mile with drilling completed in 2017 and 2018. A total of 180 holes have been drilled at the project (139 RC, 36 AC and 5 DD) for 13,866 m. The resource has been defined by a total of 111 drill holes (88 RC, 20 air core and 3 DD) for 9,048m. The typical drill hole spacing throughout the deposit is 50m on 200m line spacings however a portion has been infilled to 50m spaced holes on 100m spaced cross sections. The majority of holes were vertical.



Drill collar locations were surveyed in MGA grid by licenced surveyors using DGPS equipment. RC and DD holes have downhole surveys measured with a single-shot electronic camera.

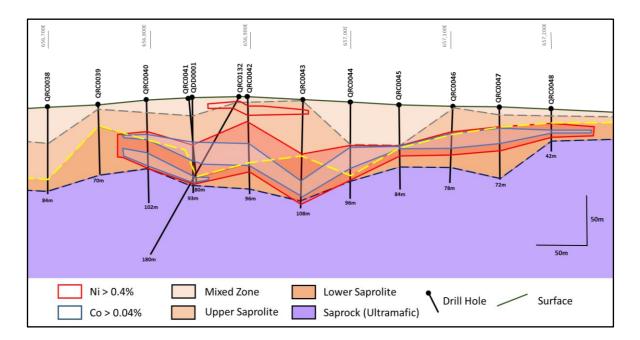


Figure 4: Schematic cross section of the Garard's prospect along section line 6,371,200N showing simplified geological zones based on lithogeochemical interpretation and geological logging

#### Sampling and Sub-Sampling Techniques

The majority of resource drilling has been completed using RC or AC with samples collected at 1 m interval from a rig mounted cone splitter. Samples were initially composited to 4 m and for composites that returned assays greater than 0.1% Ni or greater than 100ppm Co, the individual 1m samples were then submitted for analysis.

Core samples from the PQ, HQ and NQ3 core were collected by cutting the core in half with a diamond saw or manually split if not competent. Samples were generally 1 m in length with some adjustments to match logged geological boundaries.

#### **Sample Analysis Method**

Samples were submitted to LabWest in Malaga, Perth, for a multi-element suite using a mixed acid digest and ICP analysis that is considered to be a total analysis technique.

Extensive quality control protocols were in place for the resource drilling and involved a certified standard and blank being submitted at a ratio of 1:20. The results of the QAQC program were satisfactory and confirmed the reliability of the assay data.

#### **Estimation Methodology**

Separate nickel and cobalt wireframes were prepared. The nickel wireframe was based on a 0.4% Ni threshold and the cobalt wireframe was based on a 0.04% Co threshold. The cobalt wireframe



lies largely within the upper part of the nickel zone and in places lies partially above the nickel wireframe.

The nickel wireframe was used as a hard boundary for the Ni estimate, and the cobalt wireframe was used as a hard boundary for the Co estimate. Other elements were estimated using the interpreted weathering profile boundaries (mixed, upper saprolite, lower saprolite, saprock) as hard boundaries.

Interpolation parameters were based on the geometry of each zone and geostatistical parameters were determined by variography. High-grade cuts of 3% Ni and 0.5% Co were applied to the estimate however these had negligible effect on the global estimate.

The block dimensions used in the model were based on deposit geometry and drill hole spacing. Parent block sizes used were 50 m NS by 25 m EW by 2 m elevation with sub-celling to 25 m by 12.5 m by 1.0 m.

Sample data was composited into 1m intervals then block model grades estimated using ordinary kriging (OK) grade interpolation. A first pass search range of 150 m was used and oriented to match the strike of the mineralisation. A minimum of 10 samples and a maximum of 24 samples were used to estimate each block. The majority of the resource (70%) was estimated in the first pass with expanded search radii of 300 m used for the blocks not estimated in the first pass. Approximately 1% of blocks required a third pass with a minimum of 2 samples required for estimation.

Bulk density determinations were obtained by Golden Mile using the immersion method on drill core samples. A total of 139 determinations were made. For the estimate, a density value of 1.9 t/m³ was applied to the laterite zones, with a value of 2.4 t/m³ applied to the small amount of mineralisation in the Saprock zone.

### **Mineral Resource Classification**

The Mineral Resource was classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012).

The portion of the deposit defined by 50 m spaced drill holes on 100 m spaced cross sections displays good continuity of geology and grade and has been classified as Indicated Mineral Resource. The remainder of the deposit has been defined by 50 m spaced drilling on 200 m spaced sections, displays reasonable continuity of geology and mineralisation and has been classified as Inferred Mineral Resource.

#### **Cut-Off Grades**

The cut-off grades of 0.5% Ni or 0.05% Co reflect the likely minimum grades required to consider processing through either atmospheric or high pressure acid leach ("HPAL") processes if they could be applied to the deposit. The shallow, flat-lying nature of the deposit suggests good potential for eventual exploitation by open pit mining if sufficient scale of operation can be established at the project.



### Metallurgy

No metallurgical test work has been conducted at the project. Due to the similarities with the mineralisation at other operating or historically operating mines throughout Western Australia, it can be reasonably assumed that good nickel and cobalt recoveries will be achieved via HPAL processing or other leaching processes.

### **Modifying Factors**

No modifying factors were applied to the reported Mineral Resource estimate. Parameters reflecting mining dilution, ore loss and metallurgical recoveries will be considered during the any future mining evaluation of the project.

## **PROJECT DEVELOPMENT**

The Company is continuing technical studies on the Quicksilver Project and in particular will now be able to select representative samples for initial metallurgical testwork. Further information will also be collected on the mineralogy of the deposit in order to establish a comprehensive geometallurgical model for the deposit.

The majority of mineralisation at both Garard's and Garard's South prospects is predominantly classified as Inferred Resource due to the current drill hole spacing. Further infill and extensional drilling is currently being considered by the Company in order to increase both the resource and the geological confidence in the nature and continuity of the mineralisation.

The Company has identified significant potential to increase the resource at Garard's South prospect, where drilling is currently limited and the known nickel-cobalt mineralisation is open to the west and south. Statutory approvals are being obtained so that these areas can be further tested with drilling.

### For further information please contact:

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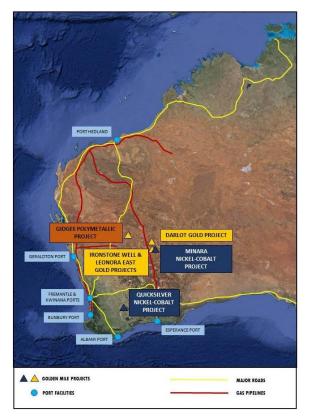
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#### About Golden Mile Resources Ltd



Golden Mile Resources is an Australian based exploration and development company, with an outstanding suite of cobalt, gold, and base metal projects in Western Australia. The Company was formed in 2016 to carry out the acquisition, exploration and development of mining assets in Western Australia, and has to date acquired a suite of exploration projects, predominantly within the fertile North-Eastern Goldfields of Western Australia.

The Company's portfolio includes two nickel-cobalt projects, namely the Quicksilver project in the South West Mineral Field and the Minara project in the North-Eastern Goldfields.

In addition, Golden Mile holds a suite of gold projects adjacent to Leonora which include the Ironstone Well & Leonora East projects.

The Company also holds the Darlot Gold project to the north of Leonora and the Gidgee Polymetallic project north of Sandstone.

For more information please visit the Company's website: www.goldenmileresources.com.au

### Forward-Looking Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Golden Mile Resources Ltd (ASX: G88) planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should," and similar expressions are forward-looking statements. Although Golden Mile Resources Ltd (ASX: G88) believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

#### Competent Persons Statement

The information in this report that relates to Mineral Resources is based upon information compiled by Mr Paul Payne, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Payne is a full time employee of Payne Geological Services Pty Ltd.

Mr Payne has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Payne consents to the inclusion in the report of the matter based on his information in the form and context in which it appears.

The information in this report that relates to Exploration Results is based upon information compiled by Mr Lachlan Reynolds, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Reynolds is the Managing Director of Golden Mile Resources Ltd and a full-time employee of the Company.

Mr Reynolds has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Reynolds consents to the inclusion in the report of the matter based on his information in the form and context in which it appears.



## **Appendix 1: Grade – Tonnage Tables**

## Nickel

Cut-off	Grade-Tonnage Ni Cut-off					
Grade	Tonnes	Ni	Со	Ni	Со	
Ni%	Mt	%	%	t	t	
0.3	32.9	0.61	0.037	199,900	12,200	
0.4	30.4	0.63	0.037	190,800	11,300	
0.5	23.1	0.68	0.038	157,200	8,900	
0.6	13.7	0.77	0.041	105,600	5,700	
0.7	7.7	0.86	0.045	66,400	3,500	
0.8	4.0	0.98	0.051	38,600	2,000	

(Rounding discrepancies may occur in summary tables)

## Cobalt

Cut-off	Grade-Tonnage Co Cut-off						
Grade	Tonnes	Ni	Со	Ni	Со		
Co%	Mt	%	%	t	t		
0.03	15.7	0.61	0.061	94,900	9,600		
0.04	12.3	0.60	0.069	74,200	8,400		
0.05	9.0	0.61	0.077	54,300	6,900		
0.06	5.9	0.61	0.089	35,800	5,200		
0.07	3.9	0.61	0.101	24,100	4,000		
0.08	2.9	0.62	0.110	17,800	3,200		

(Rounding discrepancies may occur in summary tables)



## Appendix 2: JORC Code, 2012 Edition – Table 1

## Section 1 - Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>typically 1 metre length, except where modified to sample to geological boundaries.</li> <li>Samples were typically 1-4 kg in weight depending on the core size, degree of weathering and sample length.</li> <li>Crushing and pulverisation was utilised to obtain a homogenised sample for multi-element assay.</li> </ul>
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).	<ul> <li>Aircore drilling and RC drilling (5.25" face sampling bit) was utilised to test the weathered stratigraphy through to fresh rock.</li> <li>Limited diamond drilling (PQ, HQ and NQ2 size) was utilised to obtain drill core.</li> <li>Triple tube methods were applied where appropriate.</li> <li>Core was routinely oriented using an electronic tool attached to the core barrel.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Auger and RC percussion drill samples were weighed to assess chip sample recoveries.</li> <li>Diamond drill core recovery was routinely recorded on a run by run basis and zones of missing core were identified during logging.</li> <li>There is no identified sample bias or relationship between grade and sample recovery.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All drill holes were geologically and geotechnically logged to a level of detail appropriate for further technical studies.</li> <li>Logging is primarily qualitative in nature.</li> <li>All diamond drill core was photographed.</li> <li>100% of the intersections relevant to the exploration results reported in this announcement were logged.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul> <li>Aircore and RC percussion drill samples were rotary split and typically sampled dry. A rotary split of approximately 2 kg was taken on 1 m intervals directly from the cyclone of the drill rig (for later resample if required). A spear sample, from the remaining drill bulk sample, was taken to produce a 4m composite of the down hole drilling for initial assay.</li> <li>Where competent, diamond drill core was cut with a diamond blade saw. Softer material</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>was manually split.</li> <li>Half core was taken for assay.</li> <li>Industry standard sample preparation techniques were undertaken and these are considered appropriate for the sample type and material being sampled.</li> <li>Blanks and standards were introduced as checks through both the Company sampling on site and the assay laboratory.</li> <li>The sample size is considered appropriate to the grain size of the material being sampled.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The laboratory assaying techniques are suitable for the samples submitted. Samples were submitted to LabWest in Malaga, Perth, for a multi-element suite of elements including Ag, Co, Cr, Cu, Fe, Mg, Mn, Ni &amp; Sc using a mixed acid digest and ICP analysis that is considered to be a total technique.</li> <li>The Company introduced standards and blanks throughout the sample runs on a 1:20 ratio to ensure quality control; no issues with accuracy or precision have been identified.</li> <li>Labwest also initiated duplicate sampling and ran internal standards as part of the assay regime.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Samples were collected, sampled and verified by independent geological consultant in the field and physically checked by Company personnel in the field before submission for assaying.</li> <li>Sampling and logging has been undertaken in hardcopy format prior to being entered into the Company's digital database.</li> <li>No adjustments to assay data were undertaken.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Drill hole collars are all located using a DGPS with accuracy of &lt;10 cm.</li> <li>Downhole surveys have been collected with a single-shot electronic downhole camera system, typically at 30 m intervals downhole.</li> <li>The grid system used is the Geocentric Datum of Australia 1994 (GDA 94), projected to UTM Zone 50 South.</li> <li>Topographic control is adequate and provided by DGPS surveying of sufficient spot heights to define a digital elevation model.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Aircore and RC percussion drilling has been completed on a 200 m x 50 m grid across the Garard's prospect, with local infill on a 100 m x 50 m grid.</li> <li>Diamond drilling at Garard's prospect was undertaken on broad spacing within the existing drilling grid, principally to obtain representative samples for density (specific gravity). The diamond drill holes are "twins" of previously completed RC percussion drill holes.</li> <li>Spacing and distribution of diamond drill holes at Garard's prospect complements previous RC percussion drilling, which is considered to have a data spacing and distribution sufficient to establish the degree of geological and grade continuity appropriate for the estimation of a resources.</li> <li>Sample compositing has been applied to aircore and RC percussion drill hole samples with resampling completed using uncomposited samples where appropriate.</li> </ul>



Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	mineralised zones.  • Sampling is unbiased and was designed to test the weathered and fresh lithologies in the
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were bagged and secured by Company field staff prior to transport to the laboratory.</li> <li>Samples were either delivered directly to the laboratory by Company staff or by freight contractor.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>At this preliminary stage no audits of sampling techniques and data have been completed.</li> </ul>



## **Section 2 - Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The resource estimate is located on granted exploration license E70/4641 and prospecting license P70/1723, which expire on 06/10/2019 and 14/06/2022 respectively.</li> <li>The Company has 100% ownership of the tenements.</li> <li>The tenements overlay both privately owned and Crown land.</li> <li>Access agreements are in place with the landowners where the active work program is being undertaken.</li> <li>The Company is in compliance with the statutory requirements and expenditure commitments for its tenements, which are considered to be secure at the time of this announcement.</li> <li>There are no demonstrated or anticipated impediments to operating in the area.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The deposit was discovered by Otter Exploration NL in 1979-80, who identified anomalous nickel mineralisation in a program of geological mapping, rock chip and soil sampling.</li> <li>Associated Goldfields NL completed a limited program of ground magnetics and shallow vacuum drilling in 1984-85 confirming anomalous nickel and cobalt in the weathered zone.</li> <li>Tiger Resources NL explored the ground between 1996 and 2001, completing more extensive geochemical soil surveys and shallow RAB drilling that also intersected anomalous nickel and cobalt.</li> <li>Australia Minerals and Mining Group (AMMG) completed &gt;2,500 m RC percussion drilling over the project area in 2011-13 exploring for nickel, iron ore and gold mineralisation. AMMG reported significant nickel mineralisation intercepts at the Garard's prospect.</li> <li>Compilation and digital capture of key historical data, principally the soil sampling data from Tiger and drilling data from Tiger and AMMG, has been completed. These data being utilised to assist with the ongoing work program. However, the Company is not materially reliant on this information.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The project is hosted within an unnamed Archaean (?) Greenstone Belt comprising maficultramafic rocks that have been deformed and metamorphosed under at least amphibolite facies conditions.</li> <li>The deposit occurs as a near-surface, sub-horizontal blanket of lateritic nickel-cobalt mineralisation, hosted by weathered mafic-ultramafic rocks.</li> <li>Mineralisation occurs in two main zones (termed the Garard's and Garard's South prospects) apparently separated by a NNW trending fault.</li> <li>The Quicksilver project is also considered to have potential for ultramafic-hosted, massive sulphide associated nickel-cobalt mineralisation.</li> </ul>



Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>A listing of the drill hole information material to the understanding of the mineral resources is provided in the body of this announcement.</li> <li>No material data has been excluded from this announcement.</li> <li>Drill hole intersections and other exploration results used to estimate the mineral resource reported in this announcement have all been previously reported.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Length weighted average grades have been reported.</li> <li>Maximum or minimum grade truncations have not been applied.</li> <li>No metal equivalent values have been quoted.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>The Company considers the mineralisation at Garard's prospect to be principally distributed in sub-horizontal zones.</li> <li>The majority of drill holes utilised to constrain the mineral resource reported in this announcement were drilled vertically, at a high angle to the mineralisation geometry.</li> <li>Some angled holes have been completed and will have intersection lengths greater than true width. This has been accounted for during the resource estimation process.</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	Appropriate maps and tabulations are presented in the body of the announcement.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Representative exploration results have all been previously reported.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>Specific gravity (SG) values reported in the announcement were calculated for whole core samples using the following formula:</li> <li>SG = Wa/(Wa-Ww); where Wa is the weight of the sample in air and Ww is the weight of the sample in water.</li> <li>Sample were dried at a temperature of 80oC for a minimum of 4 hours prior to measurement.</li> <li>Porous samples were wax coated to prevent water absorption.</li> </ul>



Criteria	JORC Code explanation	Commentary		
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	and diamond drilling to test for lateral extensions of the mineralisation, metallurgical testwork and other feasibility studies as appropriate.		



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

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Field data was loaded into excel spreadsheets at site.</li> <li>Digital laboratory assay records were loaded into an electronic database.</li> <li>Validation included visual review of results.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	A site visit by Paul Payne was undertaken in November 2018 to confirm surface geological features, locate drill hole collars and review general site layout.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>Geological interpretations of the weathering profile were largely based on geochemical zonation.</li> <li>Nickel and cobalt mineralisation were not controlled by geological boundaries so the interpretations were grade based.</li> <li>Information between different drilling programs is consistent and the interpretations are considered to have a high degree of confidence.</li> <li>There is no real possibility of alternative interpretations other than variation in grade thresholds used to define the mineralisation envelopes.</li> </ul>
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 Garard's and Garard's South deposits have a drilled strike extent of 3.3 km NS, a width of up to 700 m EW and a maximum vertical depth of 105 m. The true thickness of the mineralisation typically ranges from 20 m to 50 m.
Estimation and modelling techniques	<ul> <li>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.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul> <li>Ordinary kriging grade interpolation was used to estimate block grades within the resource.</li> <li>Surpac software was used for the estimation.</li> <li>Samples were composited to 1 m intervals. High-grade cuts of 3% Ni and 0.5% Co were applied to the estimate however these had negligible effect on the global estimate.</li> <li>The parent block dimensions were 25 m EW by 50 m NS by 2 m vertical with sub-cells of 12.5 m by 25 m by 1.0 m. Cell size was based on 50% of the average drill hole spacing in the well drilled part of the deposit.</li> <li>No previous estimates were completed for the deposit.</li> </ul>



Criteria	JO	ORC Code explanation	Со	ommentary
			•	carried out using swath plots.
Moisture	•	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	•	Tonnages and grades were estimated on a dry in situ basis. No moisture values were reviewed.
Cut-off parameters	•	The basis of the adopted cut-off grade(s) or quality parameters applied.		consider processing through a high pressure acid leach ("HPAL") or an atmospheric leach process which are both potential processing technologies applicable to nickel laterite deposits.
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.	•	
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 test work has been conducted at the project. Due to the similarities with the mineralisation at other operating or previously operating projects in Western Australia, it can be reasonably assumed that good recoveries can be achieved via HPAL processing or other leaching processes.  Metallurgical test work is planned.
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 area is on cleared farm land or areas of remnant vegetation. It is not known to be environmentally sensitive and there is no reason to think that proposals for development including the dumping of waste would not be approved if planning and permitting guidelines are followed.
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	•	Bulk density determinations were prepared by G88 personnel using the immersion method on samples of drill core.  A total of 139 determinations were recorded and values of 1.9t/m³ were applied to the laterite zones, and a value of 2.4 t/m³ was applied to the Saprock zone.  Further density test work is recommended.
<u> </u>	_	different materials.	L	



Criteria	JORC Code explanation	Commentary
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012).</li> <li>The portion of the deposit defined by 50 m spaced drill holes on 100 m spaced cross sections displays good continuity of geology and grade and has been classified as Indicated Mineral Resource.</li> <li>The remainder of the deposit has been defined by 50 m spaced drilling on 200 m spaced</li> </ul>
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	The Mineral Resource estimate has been checked by an internal audit procedure.
Discussion of relative accuracy/confidence	Where appropriate a statement of the relative accuracy and confidence level in the	<ul> <li>The estimate utilised good estimation practices, high quality drilling, sampling and assay data. The extent and dimensions of the mineralisation are sufficiently defined by the detailed drilling. The deposit is considered to have been estimated with level of accuracy appropriate to the classification.</li> <li>The Mineral Resource statement relates to global estimates of tonnes and grade.</li> <li>There is no historic production data to compare with the Mineral Resource.</li> </ul>