Ardea Resources Limited

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KNP Cobalt Zone pre-feasibility study underway

Exposure to the developed world's largest cobalt resource

Figure 1 – Historic drill grids, Black Range

- A pre-feasibility study of the KNP Cobalt Zone near Kalgoorlie has commenced, to be completed by January 2018.
- Cobalt targets defined at Black Range and Kalpini to be tested with RC drilling commencing in March 2017.
- These new drill programs aim to better define zones of high grade cobalt ahead of planned April 2017 core drilling for May–September 2017 bench-scale metallurgical test work.

Ardea Resources Limited (ASX: ARL, "Ardea" or "the Company") has commenced a pre-feasibility study (PFS) that will optimise a metallurgical flow sheet for the processing of the KNP Cobalt Zone. Initial drilling will be undertaken on specific areas to confirm continuity and provide samples for the PFS. Initial drilling will focus on the Black Range and Kalpini areas near Kalgoorlie.

A four to six week drilling program is expected to commence in March.

The KNP (Kalgoorlie Nickel Project) hosts the largest cobalt-nickel deposit in the developed world (see Appendix 1). Ardea's initial focus is on the high-grade portions of this deposit, known as the KNP Cobalt Zone.

KNP Cobalt Zone Pre-Feasibility Study (PFS)

The focus of Ardea's evaluation during 2017 will be to optimise a metallurgical flow-sheet for the KNP Cobalt Zone, leveraging Vale Inco's nickel PFS from 2009 and Heron's KNP scoping study from July 2014 (see Ardea's website for reference announcements from the Heron Resources archives).

The Vale Inco PFS was focused on High Pressure Acid Leach (HPAL) nickel production based on their flow-sheet from the Goro operation in New Caledonia.

Heron utilised a lower capital cost atmospheric leach, with focus on reagent re-use (Carbon Friendly Nickel Production). This "lower capex" concept is the starting basis of current Ardea studies.

The current scoping model is to target up to 2 Mtpa or ore production aiming for an initial cobalt production grade 0.15% cobalt and around 1% nickel.

The budget for the current work program is $1 million as per the 9 November 2016 prospectus.

Mr Kevin Reynolds has been appointed the study manager for the PFS. Mr Reynolds is a metallurgist with 32 years' experience that includes operations, engineering and project management. In the past, he has worked extensively on the KNP and many other projects.

An engineering firm has been selected and their scope of work being finalised.

The **KNP Cobalt Zone timetable** is as follows:

- Complete all required KNP Black Range and Kalpini RC infill drilling during March-April 2017.
- Core drilling of high cobalt zones for fresh metallurgical testing samples during April 2017.
- New KNP resource estimate based on cobalt cut-off grades by July 2017.
- May to September 2017, bench-scale metallurgical test-work and process technology evaluations for the flowsheet.
- September 2017 to January 2018, PFS engineering, cost estimation and reporting, using previous Vale Inco and Heron data where appropriate. Ardea's focus will be on the process flow-sheet and project financials.

KNP Cobalt Zone – Black Range

Lateritic cobalt-nickel mineralisation at Black Range is part of the first resource recently published for the KNP Cobalt Zone, the cobalt-rich part of the KNP. For Black Range itself, the defined JORC 2012 Inferred Resource is **20.1 Mt @ 0.10 % cobalt + 0.75 % nickel** (see *Ardea Resources second supplementary prospectus*, 6 January 2017).

The aim of the forthcoming drill program is to provide a sample of the style and continuity of mineralisation at Black Range that will facilitate upgrading of the resource.

Historic drilling at Black Range

A total of 163 drill holes have been drilled historically at Black Range, most of which lack the comprehensive assay suite that Ardea requires for its geo-metallurgical assessment. The most recent drilling was performed by Anaconda Nickel Limited (Anaconda) around 2000-2001. Some of the historic intercepts from the defined cobalt-rich areas near the upcoming targets include:

Table 1 – Examples of cobalt and nickel intercepts from historic Black Range drilling

Drillhole	Easting (mE)	Northing (mN)	From (m)	To (m)	Length (m)	Cobalt (%)	Nickel (%)	Manganese (%)	Copper (%)
BRR0071	304136	6640394	24	48	**24**	**0.216**	0.538	–	0.146
BRR0073	304136	6640452	12	24	**12**	**0.162**	1.643	–	0.021
BRR0074	304034	6640540	24	36	**12**	**0.241**	1.011	–	0.016
BRR0079	303934	6640548	16	40	**24**	**0.121**	0.777	–	0.016
BRR0080	303934	6640580	16	40	**24**	**0.138**	0.571	–	0.008
BRR0081	303934	6640608	16	52	**36**	**0.108**	0.354	–	0.005
BKRC0096	305733	6640459	8	32	**24**	**0.142**	0.848	–	0.048
BKRC0097	305735	6640357	12	28	**16**	**0.258**	0.844	–	–
BKRC0121	302936	6640342	6	18	**12**	**0.148**	1.443	0.768	0.099
BKRC0135	304536	6640755	24	50	**26**	**0.160**	0.720	0.804	0.009
BKRC0136	304538	6640853	32	48	**16**	**0.121**	1.101	0.778	0.007
SIRC1402	303878	6651921	24	30	**6**	**0.306**	1.447	1.042	0.004

Planned drilling at Black Range for the March 2017 program

At Black Range, three lines each comprising eight drill holes are planned in March 2017 for a total of 24 reverse circulation (RC) drill holes. Drill holes are expected to vary between 20 m and 60 m depth.

Historically, drill lines have been spaced at approximately 400 m, generally with 100 m intervals between drill holes. This spacing was sufficient to generate the current Inferred Mineral Resource. The new infill lines provide a 200 x 100 m drill spacing for detailed geo-metallurgical analysis and allow targeting of mineralisation for core drilling for the subsequent metallurgical test-work.

Black Range geology and mineralisation

The Black Range cobalt mineralisation occurs within deeply weathered lateritic rocks that overlie a distinct marker horizon, an ultramafic-mafic contact within the Ora Banda Layered Intrusive Complex. Within this complex there is platinum group metal (PGM) mineralisation and anomalous copper associated with the cobalt. This suggests that the Black Range lateritic cobalt-nickel mineralisation has an original cobalt-nickel-copper sulphide bedrock enrichment source. This setting is distinctly different to the remainder of the KNP, whose parental rocks are komatiites of the Walter Williams Formation.

Geo-metallurgical studies confirm the Black Range lateritic cobalt mineralisation is particularly predictable, always occurring between two distinct weathering horizons, the base of complete oxidation and top of fresh rock. Cobalt mineralisation is typically associated with pronounced enrichment of nickel, manganese, copper, PGM and chromium. The current studies indicate a mineralised zone amenable to shallow open pit mining.

Kalpini

Lateritic cobalt-nickel mineralisation at Kalpini is not presently part of the KNP Cobalt Zone. The existing resource at Kalpini is **75.0 Mt @ 0.044 % cobalt + 0.73 % nickel** (see *Ardea Resources prospectus* p.86). However, recent examination by Ardea has defined significant cobalt-bearing intercepts in historic drilling at Kalpini. Planning for the first drill program is still underway for Kalpini where around 25 RC holes are envisaged for around 1000 m of drilling.

The aim of the Kalpini program is to test whether selected resources of the KNP can be upgraded to become part of the KNP Cobalt Zone. This will be a pilot study for a series of other similarly identified cobalt-rich occurrences that are not yet part of the KNP Cobalt Zone.

Drilling at Kalpini will be performed back-to-back with the program at Black Range.

Metallurgical core sampling

Drill core will be sourced from high-grade areas of cobalt and nickel mineralisation for metallurgical testing during the PFS. The final sites to be drilled are yet to be finalised but it is likely that samples will be sourced from the Highway, Black Range, and Pamela Jean (Goongarrie South) deposits.

Drilling for metallurgical core samples is expected to commence in April.

Ardea looks forward to updating shareholders and the market as results are received.

For further information regarding Ardea, please visit www.ardearesources.com.au or www.heronresources.com.au or contact:

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Compliance Statement (JORC 2012)

A competent person's statement for the purposes of Listing Rule 5.22 has previously been announced by the Company for:

1. *Kalgoorlie Nickel Project on 21 October 2013 and 31 June 2014, October 2016, 2016 Heron Resources Annual Report and 6 January 2017;*
2. *KNP Cobalt Zone Study on 6 January 2017*

The Company confirms that it is not aware of any new information or data that materially affects information included in previous announcements, and all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. All projects will be subject to new work programs following the listing of Ardea, notably drilling, metallurgy and JORC Code 2012 resource estimation as applicable.

The information in this report that relates to KNP Exploration Results is based on information originally compiled by previous and current full time employees of Heron Resources Limited. The Exploration Results and data collection processes have been reviewed, verified and re-interpreted by Mr Ian Buchhorn who is a Member of the Australasian Institute of Mining and Metallurgy and currently a director of Ardea

Resources Limited. Mr Buchhorn has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the exploration activities undertaken 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 Buchhorn consents to the inclusion in this report of the matters based on his information in the form and context that it appears.

The exploration and industry benchmarking summaries are based on information reviewed by Dr Matthew Painter, who is a Member of the Australian Institute of Geoscientists. Dr Painter is a full-time employee and a director of Ardea Resources Limited and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Painter has reviewed this press release and consents to the inclusion in this report of the information in the form and context in which it appears.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING INFORMATION

This news release contains forward-looking statements and forward-looking information within the meaning of applicable Australian securities laws, which are based on expectations, estimates and projections as of the date of this news release.

This forward-looking information includes, or may be based upon, without limitation, estimates, forecasts and statements as to management's expectations with respect to, among other things, the timing and ability to complete the Ardea spin-out, the timing and amount of funding required to execute the Company's exploration, development and business plans, capital and exploration expenditures, the effect on the Company of any changes to existing legislation or policy, government regulation of mining operations, the length of time required to obtain permits, certifications and approvals, the success of exploration, development and mining activities, the geology of the Company's properties, environmental risks, the availability of labour, the focus of the Company in the future, demand and market outlook for precious metals and the prices thereof, progress in development of mineral properties, the Company's ability to raise funding privately or on a public market in the future, the Company's future growth, results of operations, performance, and business prospects and opportunities. Wherever possible, words such as "anticipate", "believe", "expect", "intend", "may" and similar expressions have been used to identify such forward-looking information. Forward-looking information is based on the opinions and estimates of management at the date the information is given, and on information available to management at such time. Forward-looking information involves significant risks, uncertainties, assumptions and other factors that could cause actual results, performance or achievements to differ materially from the results discussed or implied in the forward-looking information. These factors, including, but not limited to, the ability to complete the Ardea spin-out on the basis of the proposed terms and timing or at all, fluctuations in currency markets, fluctuations in commodity prices, the ability of the Company to access sufficient capital on favourable terms or at all, changes in national and local government legislation, taxation, controls, regulations, political or economic developments in Australia or other countries in which the Company does business or may carry on business in the future, operational or technical difficulties in connection with exploration or development activities, employee relations, the speculative nature of mineral exploration and development, obtaining necessary licenses and permits, diminishing quantities and grades of mineral reserves, contests over title to properties, especially title to undeveloped properties, the inherent risks involved in the exploration and development of mineral properties, the uncertainties involved in interpreting drill results and other geological data, environmental hazards, industrial accidents, unusual or unexpected formations, pressures, cave-ins and flooding, limitations of insurance coverage and the possibility of project cost overruns or unanticipated costs and expenses, and should be considered carefully. Many of these uncertainties and contingencies can affect the Company's actual results and could cause actual results to differ materially from those expressed or implied in any forward-looking statements made by, or on behalf of, the Company. Prospective investors should not place undue reliance on any forward-looking information.

Although the forward-looking information contained in this news release is based upon what management believes, or believed at the time, to be reasonable assumptions, the Company cannot assure prospective purchasers that actual results will be consistent with such forward-looking information, as there may be other factors that cause results not to be as anticipated, estimated or intended, and neither the Company nor any other person assumes responsibility for the accuracy and completeness of any such forward-looking information. The Company does not undertake, and assumes no obligation, to update or revise any such forward-looking statements or forward-looking information contained herein to reflect new events or circumstances, except as may be required by law.

No stock exchange, regulation services provider, securities commission or other regulatory authority has approved or disapproved the information contained in this news release.

Appendix 1 – About the KNP and the KNP Cobalt Zone

The KNP

There is a renewed global interest in cobalt owing to its prominent use in lithium ion batteries and associated technologies supporting renewable energy storage.

Ardea's Kalgoorlie Nickel Project (KNP – Figure 2) is a globally significant lateritic nickel resource that contains substantial concentrations of cobalt. The global resource for the KNP is **805.3 Mt at 0.048 % cobalt and 0.70 % nickel** (Table 2 below) which equates to over **386,000 t of contained cobalt metal**.

Table 2 – KNP Resources breakdown

Resource Category	Quantity (Mt)	Co (%)	Ni (%)
Measured	9.6	0.081	1.02
Indicated	244.0	0.052	0.75
KNP Total Measured and Indicated	*253.6*	*0.052*	*0.76*
Inferred	551.7	0.046	0.68
KNP Total Resources	**805.3**	**0.048**	**0.70**

Recent recalculation of these resources with a focus on cobalt rather than nickel concentrations shows that the KNP is **one of the world's largest cobalt resources**, and certainly the largest in the developed world.

The KNP Cobalt Zone

A cobalt-rich subset of the KNP, known as the KNP Cobalt Zone, contains a significant cobalt and nickel resource in its own right. The KNP Cobalt Zone contains **49.7 Mt at 0.12 % cobalt and 0.86 % nickel** (Table 3) for a total **contained cobalt metal of just under 60,000 t**. Our aim is to substantially increase upon this initial resource through exploration of known outlying cobalt occurrences and drill intercepts, and through reinterpretation of the resource based on cobalt cut-off grades rather than the current 0.5 % nickel cut-off.

Table 3 – KNP Cobalt Zone, Resource Statement from RMRC consulting group

Area	Prospect	Resource category	Cutoff (% Co)	Size (Mt)	Cobalt (%)	Nickel (%)
Goongarrie	Goongarrie South	Measured	0.08	3.4	0.14	1.19
		Indicated	0.08	11.2	0.11	0.92
		Inferred	0.08	1.4	0.11	0.76
	Big Four	Indicated	0.08	4.5	0.11	0.89
		Inferred	0.08	0.2	0.11	0.95
	Scotia	Inferred	0.08	2.9	0.14	0.88
	Goongarrie subtotal			*23.6*	*0.12*	*0.94*
Siberia	Black Range	Inferred	0.50(Ni)	20.1	0.10	0.75
Yerilla	Aubils	Inferred	0.08	6.0	0.15	0.90
KNP Cobalt Zone total resources				**49.7**	**0.12**	**0.86**

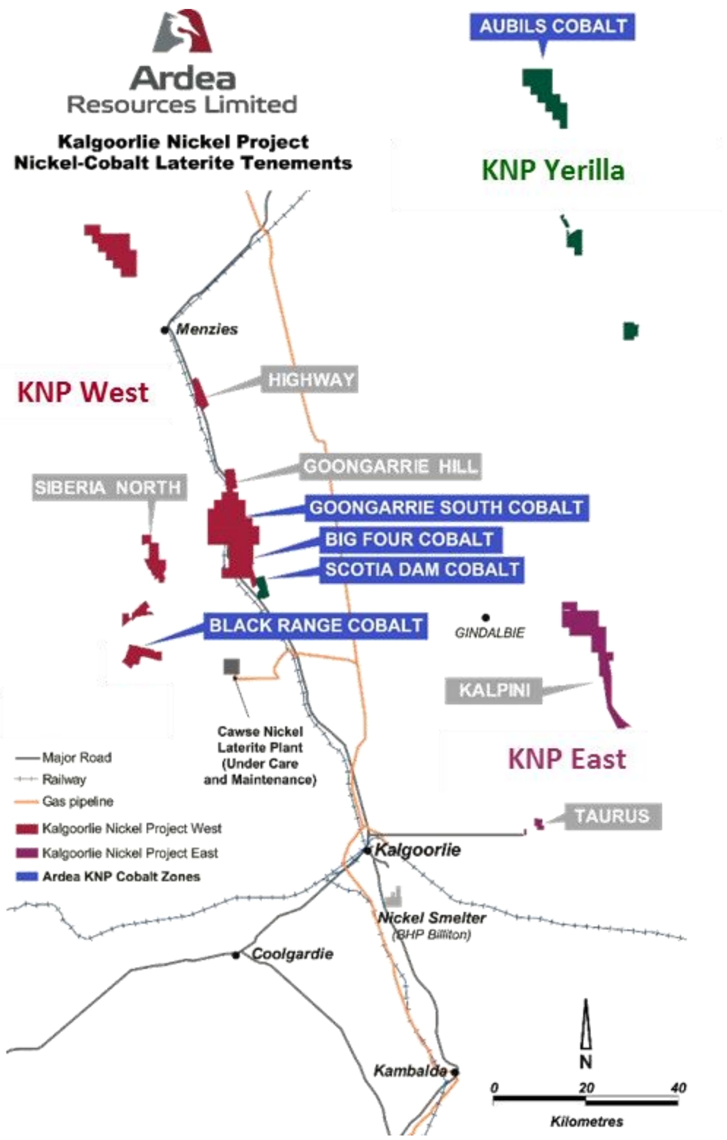

Figure 2 – The KNP and KNP Cobalt Zone, near Kalgoorlie WA

Table 4 – Ardea Benchmarks, ASX-listed companies (+ Glencore) ranked by contained cobalt metal

	Company	Size (Mt)	Cobalt (%)	Co metal (kt)	Project	Mineralisation style
1	**Ardea Resources**	**805**	**0.05%**	**386.4**	**Kalgoorlie Nickel Project, WA**	**Laterite Ni-Co**
2	Glencore	256	0.07%	179.4	Murrin Murrin WA	Laterite Ni-Co
3	CleanTeq	109	0.10%	114.0	Syerston, NSW	Laterite Ni-Co-Sc
4	GME	108	0.06%	65.1	NiWest Project, WA	Laterite Ni-Co
5	**Ardea Resources**	**50**	**0.12%**	**59.6**	**KNP Cobalt Zone, WA**	**Laterite Co-Ni-Mn**
6	Conico	32	0.12%	39.3	Mt Thirsty, WA	Laterite Ni-Co
7	Cobalt Blue	36	0.08%	30.0	Broken Hill, NSW	Co sulphide
8	Regal	4	0.72%	29.1	Kalongwe, DRC	Cu-Co sulphide
9	Havilah	18	0.10%	17.5	Mutooroo, NSW	Cu-Co sulphide
10	CuDeco	57	0.03%	16.7	Rocklands, Qld	Cu-Au-Co sulphide

Data sourced from SNL.com except for Murrin Murrin (Glencore 2014 Resources and Reserves Report)

Ardea plans to focus on the application of advanced metallurgical processes to optimise cobalt extraction and meet increasing cobalt demand from the booming vehicle electrification and energy storage sectors.

For reference, the ranking of the KNP and the KNP Cobalt Zone relative to other ASX listed companies and their cobalt resources, as well as Glencore's Murrin Murrin deposit, is shown in Table 4.

Ethically sourced cobalt for technology industries and green energy

Cobalt is a major component of most lithium ion batteries, which are used in smartphones, computers, electric and hybrid vehicles, and solar power storage systems. Cobalt prices have risen substantially over the last year to $US44,000 per tonne (London Metal Exchange, 18 February 2017).

Securing a reliable and ethical source of cobalt is becoming challenging for many users. In January 2016, Amnesty International highlighted the extensive use of child labour in cobalt mining operations in the Democratic Republic of Congo (DRC)[1], the world's major supplier of cobalt. With presidential elections scheduled for next year in the DRC, the threat of political instability and interruptions to continuity of supply are also real.

Technology companies are looking to source cobalt from countries where ethical work practices are essential, particularly as these principled considerations become more acute as demand increases over time. The development of the KNP Cobalt Zone can provide a long-term stable supply of ethically sourced cobalt for our future technological and green energy needs.

[1] *Source: "This is what we die for: Human rights abuses in the Democratic Republic of the Congo power the global trade in cobalt." Amnesty International, January 2016 (AFR 62/3183/2016)

Appendix 2 – JORC Code, 2012 Edition, Table 1 report

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary

Sampling techniques
 	
Note: Due to the similarity of the deposit styles, procedures and estimations used this table represents the combined methods for all Heron (HRR) Nickel Laterite Resources. Where data not collected by HRR has been used in the resource calculations, variances in techniques are noted.
	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*
	• *Aspects of the determination of mineralisation that are Material to the Public Report.*
	• *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*
		• The nickel laterite resources were sampled by drilling using dominantly Reverse Circulation (RC) with occasional Diamond Drill (DD) on various grid spacing between 10x10 metre and 80x160 metre spacing. Holes were usually vertical (-90 degree dip), designed to optimally intersect the mineralisation. The majority of holes were sampled on 2 metre, or less commonly 1 metre down hole intervals.
		• RC holes form the majority of the samples used in the resource calculation.
		• DD holes were drilled for a combination of:
		  • twin testing of RC drilling;
		  • density determination;
		  • geotechnical logging and test work;
		  • geological logging (structural logging); and
		  • metallurgical test work.
		
		Where appropriate the results of diamond core sampling and assays were used in the resource calculation.
		
		• A number of bulk sample holes employing either Calweld (900 to 1200mm, large diameter well boring rig) or Sonic drilling techniques were also completed at Jump Up Dam, Goongarrie, Highway and Siberia Deposits. These holes were primarily for obtaining bulk samples for metallurgical studies and the assay results were not used in the resource calculation.
		• Bulong East resources were calculated using the database of Bulong Mining Pty Ltd (in Receivership). Techniques employed were broadly similar to those used by Heron.
		• Goongarrie Hill, Goongarrie South, Highway and Siberia Deposits were all partially explored by Vale between 2002 and 2007. Vale employed the same drilling and sampling techniques as Heron for these deposits.

Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• RC drilling was performed with a face sampling hammer (bit diameter between $4^{1/2}$ and $5^{1/4}$ inches) and samples were collected by either a cone (majority) or riffle splitter using 2 metre composites. Sample condition, sample recovery and sample size were recorded for all drill samples collected by HRR.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• RC chip sample recovery was recorded by visual estimation of the reject sample, expressed as a percentage recovery. Overall estimated recovery was approximately 80%, which is considered to be acceptable for nickel laterite deposits. RC Chip sample condition recorded using a three code system, D=Dry, M=Moist, W=Wet. DD Core recovery was recorded during logging. A small proportion of samples were moist or wet (11.5%), with the majority of these being associated with soft goethite clays, where water injection has been used to improve drill recovery. • Measures taken to ensure maximum RC sample recoveries included maintaining a clean cyclone and drilling equipment, using water injection at times of reduced air circulation, as well as regular communication with the drillers and slowing drill advance rates when variable to poor ground conditions are encountered.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• For RC drilling, visual geological logging was completed for all RC drilling on 1 metre intervals. Logging was performed at the time of drilling, and planned drill hole target lengths adjusted by the geologist during drilling. The geologist also oversaw all sampling and drilling practices. A mixture of Heron employees and contract geologists supervised all drilling. A small selection of representative chips were also collected for every 1 metre interval and stored in chip-trays for future reference.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• RC Drilling; 2 metre (and rarely 1 metre) composite samples were recovered using a 15:1 rig mounted cone splitter or trailer mounted riffle splitter during drilling into a calico sample bag. Sample target weight was between 2 and 3kg. In the case of wet clay samples, grab samples taken from sample return pile, initially into a calico sample bag. Wet samples stored separately from other samples in plastic bags. • For RC sampling QAQC was employed on all programs. A standard, blank or duplicate sample was inserted into the sample stream 10 metres on a rotating basis. Standards were either quantified industry standards, or standards made from homogenised bulk samples of the mineralisation being drilled (in the case of the Yerilla project). Every 30th sample a duplicate sample was taken using the same sample sub sample technique as the original sub sample. Sample sizes are appropriate for the nature of mineralization. QAQC results were verified against each program prior to loading into the database. • A small percentage of holes were separately resampled post drilling to confirm the integrity of the different sampling techniques employed.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc,*	• All Anaconda samples were prepared and analysed by Ultratrace Laboratories in Perth by silicate fusion / XRF analysis (lab method XRF202) for multiple grade attributes (Ni, Co, MgO, FeO, Al_2O_3, SiO_2, CaO, Mn, Cr, Cu, Zn, As, S and Cl). Fusion / XRF analysis is an industry standard method used to analyse nickel laterite ores and Ultratrace is a reputable commercial laboratory with extensive experience in assaying nickel laterite samples from numerous

Criteria	JORC Code explanation	Commentary
	the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	Western Australian nickel laterite deposits. • Ultratrace routinely inserts analytical blanks, standards and duplicates into the client sample batches for laboratory QAQC performance monitoring. • All of the QAQC data has been statistically assessed and the precision and accuracy of the assay data for the important grade components has been found to be acceptable and suitable for use in resource estimation.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• A selection of samples have been analysed at an alternate laboratory (SGS Analabs) using XRF fusion technique to verify the results reported by Ultratrace. The compared results show a high degree of precision and no systematic bias. • Two metre composites for the twinned RC and DD or Sonic hole pairs have been statistically compared and determined to have similar unbiased chemical compositions for Jump Up Dam, Highway, Goongarrie deposits. Whilst there was some variability in the geology of the close spaced drill holes, the short range variance is typical of Nickel Laterite deposits in WA. • Where geology agreed within the twinned holes, assays were generally similar between the different methods. There was a slight negative bias in the material reporting to the fines component of RC sampling (which includes Ni, Co, FeO, Al_2O_3 and Mn) compared to the Sonic drilling in some of the twinned holes at Goongarrie and Highway, and a corresponding upgrade in coarse material (calcrete, carbonates and siliceous material). • Despite the evidence for grade differences in some of the twined holes related to the RC drilling process, overall, the RC drilling is still considered to provide samples that adequately represent the true geochemistry of the regolith which are suitable for the purpose of resource estimation.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• All drill holes surveyed using an RTK DGPS system with either a 3 or 7 digit accuracy. The coordinates are stored in the exploration database referenced to the MGA Zone 51 Datum GDA94. • The majority of vertical holes used in the resource calculations were not down hole surveyed. The horizontal orientation of the mineralisation, combined with the soft nature of host material would result in minimal deviation of vertical RC drill holes. All diamond holes were down hole surveyed by an external contactor. A small number of vertical open RC holes were check surveyed at Jump Up Dam, and found to have deviation over 60m of less than 1 metre, which is considered sufficiently accurate for this style of mineralisation. • The grid system for all models is GDA94. Where historic data or mine grid data has been used it has been transformed into GDA94 from its original source grid via the appropriate transformation. Both original and transformed data is stored in the digital database. • Topographic control varies between the deposits. At Jump Up Dam, LIDAR data to ±10cm vertical and ±50cm horizontal was used to generate a contour plan which was then used construct a DTM of the topography. For Bulong existing picked up pit DTMs (from mine

Criteria	JORC Code explanation	Commentary
		surveys) were added to a DTM constructed from drill hole collars to produce a topographic DTM post mining. For all other deposits, DTMs were constructed from picked up drill collar locations. The use of collar data is considered sufficiently accurate for reporting of resources, but is not suitable for mine planning and reserves.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Anaconda's drilling at Black Range was nominally spaced at 400 x 100 m, locally to 200 x 50 m. • Classification of mineralisation varies from measured (applied to 10m x10m grids and mined stockpiles), indicated (applied to 20x40m to 40x80m grids, including remaining resources in the partially mined Bulong East deposits) and inferred (up to 160mx80m spaced drilling). These classifications match the practical performance of the progressive drill out of Heron's nickel laterite deposits. Measured resources reconciled well with trial mining at Jump Up Dam during 2006. • All Anaconda RC samples were composited to 2 metre prior to sampling during drilling.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The majority of the drill holes is vertical and give true width of the regolith layers and mineralisation.
Sample security	• *The measures taken to ensure sample security.*	• Anaconda's historic sample security measures are unknown.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Internal reviews of the database were routinely taken. The database has been checked prior to each model run for the following issues: o Unsurveyed drill hole collars (less than 1% of collars). o Drill Holes with overlapping intervals (0%). o Drill Holes with no logging data (less than 2% of holes). o Sample logging intervals beyond end of hole depths (0%). o Samples with no assay data (from 0 to <5% for any given project, usually related to issues with sample recovery from difficult ground conditions, mechanical issues with drill rig, damage to sample in transport or sample preparation). o Assay grade ranges. o Collar coordinate ranges o Valid hole orientation data. • The Ultratrace Laboratory was visited by Heron Resources staff in 2006, and the laboratory processes and procedures were reviewed at this time.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The tenements on which sampling at Black Range was undertaken are no longer active. The results quoted now fall onto tenement M24/00757.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Black Range deposit was initially discovered and drilled by Anaconda Nickel Limited. • Vale Inco completed a prefeasibility study on the KNP. Subsequently, an updated PFS was completed by Heron Resources.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Company's nickel laterite mineralisation is developed from the weathering and near surface enrichment of Achaean-aged olivine-cumulate ultramafic units. The mineralisation is usually within 60 metres of surface and can be further sub divided on mineralogical and metallurgical characteristics into upper iron-rich material and lower magnesium-rich material based on the ratios of iron to magnesium. The deposits are analogous to many weathered ultramafic-hosted nickel-cobalt deposits both within Australia and world-wide.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• The drill hole data relating to the resource estimates in this report are all previously reported results. No new drilling has taken place at Black Range since 2000. Ongoing studies for these deposits are focused on the metallurgical characteristics of the mineralisation and development of new process technology.
Data aggregation methods	• *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.* • *Where aggregate intercepts incorporate short lengths of high grade results*	• Not applicable to this report. All figures previously reported.

Criteria	JORC Code explanation	Commentary
	and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• The mineralisation of all Heron's nickel laterite resources has a strong global horizontal orientation. The majority of drill holes are vertical. With the exception of local offsets due to slumping, all vertical drill holes intersect the mineralisation at approximately 90 degrees to its orientation. All down hole widths approximate true widths for vertical holes.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Not applicable to this report.
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.*	• Not applicable to this report. All figures 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.*	• Not applicable to this report.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Forthcoming drill program will better define the extent and distributions of mineralisation at Black Range.

Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Heron employed a robust procedure for the collection of and storage of sample data. This included auto-validation of sample data on entry, cross checking of sample batches between the laboratory and the database and regular auditing of samples during the exploration phase. Sample numbers were both recorded manually and entered automatically. Discrepancies within batches (samples were batched on a daily basis) were field checked at the time of data entry, and resampled if errors could not be resolved after field inspection. • Data validation procedures include digital validation of the database on entry (no acceptance of overlapping intervals, duplicate hole and sample ID, incorrect legend information, out of range assay results, incorrect pattern of QAQC in sampling stream, failed QAQC, missing assays, samples and geological logging). At the time of resource modelling all data was visually checked on screen, and manually validated against field notes. All changes to the database were verified by field checks.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• No comment can be made on the validity of historic work by Anaconda, except to say that infill drilling has broadly similar results to the historic data.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• There is a strong correlation between the geology of adjacent drill holes in all of the resources. There is also a strong global correlation between weathering profile, lithology and mineralisation intensity. On a local scale the changes in weathering profile is often discrete, but of a complex geometry. There is good confidence overall in the geological model, and this has been confirmed at Jump Up Dam by the trial mining of 20,000 tonnes of mineralisation. • A combination of geological logging and assay data has been used to sub divide the mineralisation into high-iron and high-magnesium mineralisation types, within a mineralised domain. High-carbonate domains have also been defined. High-silica domains were more problematic to define, and further work is required on developing this geometallurgical domain. • The continuity of mineralisation is strongly controlled by bed rock alteration and palaeo water flow within the ultramafic host units. Areas of deep fracturing and water movement within the bedrock typically had higher grade and more extensive mineralisation in the overlying regolith. In the proximity of geological contacts between the ultramafic hosts and surrounding mafic and felsic lithologies there is often a distinctive increase in grade and widths of mineralisation, including the development of mineralisation along fracture planes in the adjacent felsic and mafic units. Where the host regolith overlies olivine adcumulate lithologies there is an increase in siliceous material and a loss of the high magnesium mineralisation horizon. In areas where the host ultramafic was altered to talc, or talc-carbonate lithologies there was no

Criteria	JORC Code explanation	Commentary
		development of nickel mineralisation in the regolith. These areas typically formed along shears, and sheared contacts within the bedrock. • Mineralisation domains were developed using a combination observed geological logging, and multi element geochemical sampling. Lower cut-off grades for the nickel domain was 0.25% Ni for the Vale modelled Goongarrie, Scotia, Highway and Big Four deposits, and 0.4% Ni for all other domains. The domains do contain material of lower grades where continuity of interpretation warrants the addition of internal waste.
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.*	• Resource dimensions vary between deposits, however the resources are usually sub horizontal, tabular with strike length over 1000 metres, widths between 100-600 metres and thickness of 10-20 metres. Some resources outcrop, while most lie under thin (generally less than 30 metre thick) soils, cap rock or palaeo-channel sands and clays. Most of the modelled resources are less than 60 metres below surface.

Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*
	• *The assumptions made regarding recovery of by-products.*
	• *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*
	• *Any assumptions behind modelling of selective mining units.*
	• *Any assumptions about correlation between variables.*
	• *Description of how the geological interpretation was used to control the resource estimates.*
	• *Discussion of basis for using or not using grade cutting or capping.*
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*
		• All deposits were Ordinary Kriged (OK), using variography of the domained Ni shells for Ni, Co, MgO, FeO, Al_2O_3 and SiO_2 assay suits. (SiO_2 was unavailable for Siberia, Kalpini and Ghost Rocks due to a lack of assays and was not modelled). In addition to the OK model estimates, Uniform Conditioning (UC) was applied to nickel only for Jump Up Dam, Boyce Creek, Aubils, Highway, Goongarrie, Big Four and Bulong deposits. Although previously reported, these figures have not been reported in the current resource statement.
		• Deposits were estimated using either Vulcan or Datamine mining software, with various versions of Visor being employed for the variography modelling. The original domain wireframe interpretations for Jump Up Dam were created in Micromine.
		• Block sizes varied between models based on drill spacing and deposit geometry as follows
		  ○ 40 x 120 x 2 metre Siberia, Kalpini, Siberia North and Ghost Rocks
		  ○ 80 x 80 x 4 metre Aubils
		  ○ 40 x 80 x 2 metre Highway
		  ○ 40 x 50 x 2 metre Bulong East and Taurus
		  ○ 60 x 120 x 4 metre Goongarrie Hill
		  ○ 40 x 40 x 4 metre Goongarrie South, Big Four
		  ○ 20 x 40 x 4 metre Boyce Creek
		  ○ 10 x 10 x 2 metre Jump Up Dam (global change of support was used to calibrate the estimates within the wider spaced drilling areas)
		• All models used parent cell interpolation with sub-cells half the dimension of the parent cell to improve volume reporting.
		• Ni and Co are the principal economic minerals. Fe has the potential to be an economic mineral under some processing options being assessed. MgO, FeO, Al_2O_3 and SiO_2 are all important minerals in the classification of the different geometallurgical styles of mineralisation for both materials handling and metallurgic extraction processes. All have been individually

Criteria	JORC Code explanation	Commentary
		estimated for most of the deposits using OK methods. • The domain boundary for mineralisation is similar for all deposits with a step change in nickel grades being modelled around the 0.4% Ni (or 0.25% Ni for Vale deposits – see geological interpretation above) threshold using a wireframe constraint. The two sub domains within the mineralised domain were usually geostatistically analysed and modelled separately. These internal domains relate to the high-iron, and high-MgO domains, which form the upper and lower portions of the mineralised weathering profile, and are usually separated by a sharp (although often geometrically complex) geological boundary. (Note: for some deposits only one or other geochemical domain is present). Depending on results of the variography, grades were modelled independently for each element modelled within the separate geochemical domains within the nickel wireframe shell. No shells were developed for cobalt or any other minerals, and grades were interpolated into the same domain. • All deposits have been previously modelled, and were checked against previous models to confirm the expected changes between models. • Model estimates were validated against drilling by comparing input and output means, moving window comparative means and by visual inspection of the models. The results of these investigations were generally acceptable for level of resource confidence applied to each model. • In the case of Jump Up dam, where trial mining has taken place, reconciliation between measured resources and mining was very good for both nickel and cobalt. There were some discrepancies in the modelled mineralogical classification of the mineralisation which will have a local effect on processing, depending on the process method employed. These discrepancies were related to the highly complex geometry of the interface between high and low magnesium portions of the deposit, even within a 10 metre spaced drilling grid.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• All tonnages reported are dry tonnes for all models. Dry density was determined from drill core and down hole gamma for the Jump Up Dam, Scotia, Highway and Goongarrie deposits. This dry tonnage was applied to the other deposits on a material type basis (see Bulk Density for more details).
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The 0.25 and 0.4% Ni cut-offs used for the wireframe domains of the deposits was based on two observed step changes in nickel grades across the drill holes. A 0.5% Ni grade was used for reporting purposes as this is a common lower grade cut employed during mining of Nickel Laterites.
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*	• Open pit mining via conventional dig and haul with minimum blasting is assumed for all deposits. Given the lateral extent of the models the selective mining unit SMU is likely to be 10x10x4(or 2) metres and this was used to develop the uniform conditional model grades for

Criteria	JORC Code explanation	Commentary
	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.	nickel for the deposits. • For the purposes of removing unlikely to be economic resources from the resource statement, a Whittle optimization of the KNP and Yerilla deposits was carried out using an A$12.50 per pound nickel price. Mining and processing costs, along with royalty and recovery factors were taken from the 2010 Heron PFS mining study for this process. The evaluation was carried out on the Kriged nickel and cobalt grades only (uniform conditioning models were not used).
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.*	• The KNP and Yerilla Projects are both subject to ongoing metallurgical studies. Processes being considered include, heap leaching, vat leaching, high pressure acid leaching, screen upgrades prior to leaching and pyrometallurical methods. All methods are capable of processing Nickel Laterite ore types into saleable products and are currently in use at different deposits across the world. The current focus of studies into a preferred metallurgical approach is on acid leaching methods with a particular focus on improving the recovery of reagents during processing to improve unit costs.
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.*	• It is expected that waste rock material will largely be disposed of inside previously completed pits during the life of mine. Tailings disposal will consist of a mixture of conventional tailings dams and disposal in mined out pits. As all of the material mined will be of an oxidized nature, there is not expected to any acid generating minerals in the waste rock material. The processed tailings will need to be neutralized or recovered from the tailings stream prior to disposal in waste storage facilities. The expected land forms at the conclusion of the project will be of similar profile to the current land forms. • Environmental studies for the project have been started with base line surveys for flora and fauna. However, as the final process route is currently subject to research, the final environmental plans are yet to be developed. It is reasonable, given the existing nickel laterite operations in WA, that all environmental issues can be resolved and it will be possible to mine the resources within current environmental guidelines.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk densities were measured for the Jump Up Dam, Goongarrie and Highway, by both gamma down hole measurements, weight of recovered core versus drilled volume and wet/dry density measurement of drill core. Both the wet/dry and weight of recovered core methods include voids in the density assessment. The three measurements all gave similar reading for the in-situ density of the material (including any moisture within the in-situ material). Changes in mass were recorded for the recovered core between its as drilled mass, and mass after kiln drying to apply moisture content to the density measurements producing a dry density for resource estimation purposes. The variance in measured dry density was between 1.3 and 2.05/m^3 for all material types. Most of the mineralisation lies within the ‘clay’ material which

Criteria	JORC Code explanation	Commentary
		has a dry density of between 1.30 and 1.33t/m³. Densities were assigned to material based on the geochemical material classification scheme for each of the deposits. • All other deposits were not measured in the field. Densities based on the above measurements were applied to similar geology on these deposits, using either the geochemical material classification scheme, or, where assays not sufficient for classification, the average density for clay material.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Classification varied slightly between the deposits. All classification of resource estimates were based on a combination of drill hole spacing, the ranges of mineralisation continuity (developed from variography studies), availability of all assay suits for geochemical classification and the slope of regression of the ordinary kriged nickel estimates. **Inferred Mineral Resource** • Drill spacing of over 40x40 metre, up to 80x160 metre, including material extended beyond the last line of drilling where deposits have not been closed out. • All assays (Ni, Co) available. Some deposits had additional elements available. • Limited accuracy or no information available for the development of geochemical domains for high Fe and high MgO domains. • Density values assumed for the material being modelled from results of other projects. • The expected global accuracy of this material is ± 30% for tonnes of nickel.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• All resource estimates attributed to Snowden were reviewed internally by Snowden at the time of their creation, and externally by Heron. Models created in-house by Heron have been validated against previous models created by Snowden. All models have been checked by Heron employees both past and present and are considered to be reasonable estimates of resources given the level of confidence applied to each model.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• All models as reported provide reasonable global estimates of the available nickel and cobalt resources. Models have been validated visually against drilling for both the recoverable minerals nickel and cobalt, and important geometallurgical minerals modelled (FeO, MgO, Al_2O_3, CaO and SiO_2). • The measured resources trial mined at Jump Up Dam reconciled to within 5% of both tonnes mined and nickel grade of mined material (note this reconciliation is an "as-mined" reconciliation, as the material mined has not been processed to date). In the trial mine there were some significant departures in modelled geometallurgical material type, no doubt partially due to the small sample size of the mining volume, but also reflecting the short range complexity of the MgO horizon and difficulties in mining of the highly variable contact zone. • Overall the modelled resources present a very reasonable global estimate of the resources for Ni and Co. The also provide a reasonable global estimate for MgO, FeO and Al_2O_3 estimates within the ore domains. Where measured material has been modelled (ie 10x10 metre spaced

Criteria	JORC Code explanation	Commentary
		drilling), the local estimate of nickel and cobalt reconciled well within industry standards.