CASSINI
RESOURCES LIMITED

ASX Release (CZI)
29 January 2018

Option to Acquire Ni-Cu-Co Project in WA

HIGHLIGHTS

- **Yarawindah Brook, an early stage Nickel – Copper – Cobalt Project**
- **Massive sulphide mineralisation intersected in historical drilling**
- **Cassini geological analysis has identified walk up drill targets**
- **Applying significant nickel expertise to an under-explored project**

Cassini Resources Limited (ASX:CZI) ("Cassini" or the "Company") is pleased to announce it has secured an option to acquire the Yarawindah Brook Ni-Cu-Co Project ("the Project") in Western Australia. With the West Musgrave Joint Venture with OZ Minerals Ltd proceeding to Stage 2 of the earn-in, the Company will recommence activities at its 100% owned exploration projects, including opportunities to add to the project portfolio. The Company believes it can add significant value to these projects through modest expenditure whilst maintaining its core focus on the development and exploration of the West Musgrave Project. This will provide our shareholders exposure to near-term exploration success.

Project Background

Cassini is actively identifying and reviewing new exploration and development opportunities to complement its existing portfolio. As part of this process, Cassini has entered an option agreement to earn into the Yarawindah Brook Project through private company Souwest Metals Pty Ltd (Souwest), a company associated with Kalgoorlie prospector Mr Scott Wilson.

Yarawindah Brook is located 130km northeast of Perth, in agricultural land near the township of New Norcia (Figure 1). The Project has had only limited nickel, copper and cobalt exploration despite a favourable regional setting, prospective geology and near-surface occurrences of nickel and copper. Historic exploration has focussed primarily on a small platinum and palladium (PGE's) resource which the Company views as a "path-finder" anomaly for massive nickel - copper – cobalt sulphides. Exploration for nickel and copper has been sporadic, however the most recent drilling in 2007 targeting surface EM anomalies, returned encouraging results from hole YWRC0083 including 7m @ 1.30% Ni, 0.22% Cu, 0.06% Co and 432ppb Pd from 74m. (See Table 1 for a more comprehensive list of significant results). Despite the promising result no further follow-up drilling was conducted due to budget limitations of the previous operator during the exploration downturn post-GFC.

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Historic drilling has identified primary nickel and copper mineralisation over a strike length of at least 2km, with only a handful of these holes deeper than 100m. In addition, reconnaissance rock chip sampling has identified other anomalous nickel outcrops on the Project that are yet to be drilled (Figure 2). Rock chip samples have reached up to 0.49% Ni.

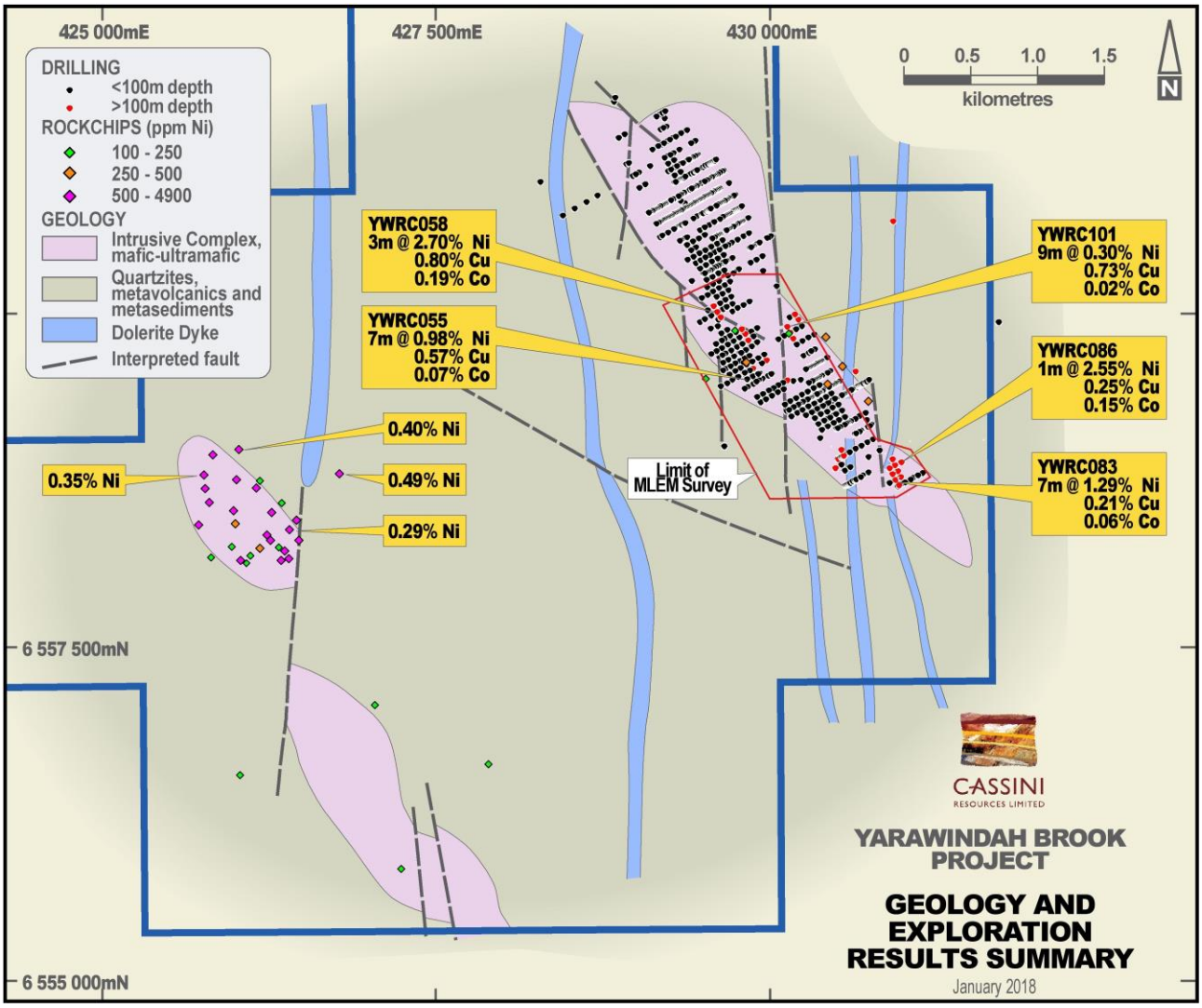

Figure 2. Yarawindah Brook geology and exploration summary.

Cassini has taken an option to earn an 80% equity interest in the Yarawindah Project through payment of an Option Fee of $50,000 (including reimbursement of costs) and committing to spend a minimum of $250,000 on the Project prior to 30 March 2019. If Cassini decide to progress and acquire 80% of the shares in Souwest, a further payment of $300,000 in cash or Cassini shares (at Cassini's election) will be made. Souwest will be free-carried until a decision to mine is made.

Work Program

Cassini has compiled all previous drilling as well as numerous geophysical surveys into a consolidated database. Re-modelling of this data has shown that a number of EM conductors have not been tested by previous drilling, with a number of holes either not hitting or only intersecting the margins of the conductor, which appears to be the case for YWRC083 (Figure 3). These conductors appear to plunge between existing drill holes and are a priority for further exploration targeting massive nickel-copper-cobalt sulphide. Additional EM conductors are also yet to be adequately tested at four other localities within the Project. To date, all conductors have proven to be associated with magmatic sulphides.

The surface EM coverage completed to date has been limited and has not effectively covered the Project area, particularly the ultramafic basal contact zone which is a highly prospective position for the accumulation of nickel sulphides. Re-interpretation of the geology and targeting is continuing.

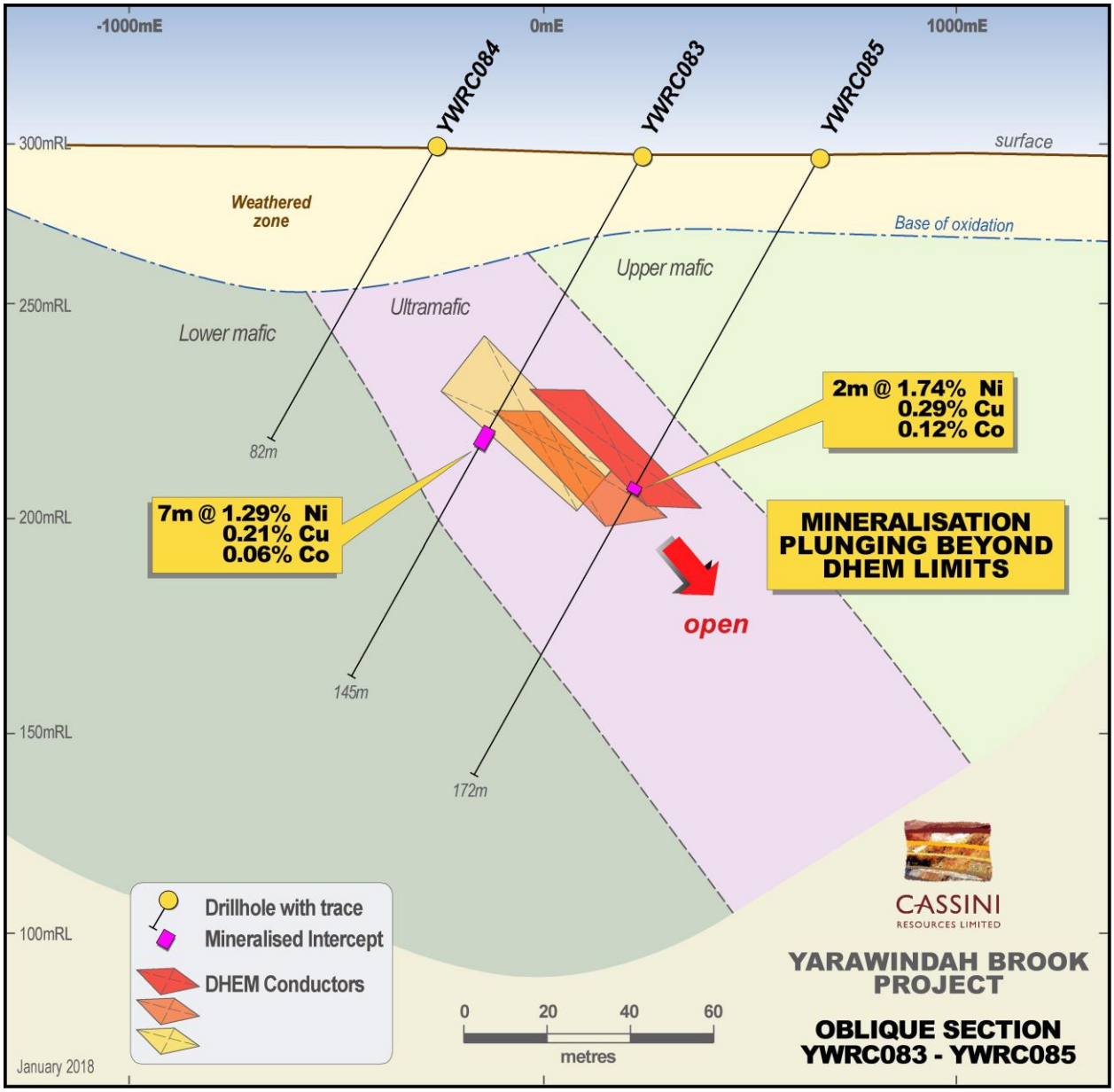

Figure 3. Yarawindah Brook drill section, AN1 Prospect.

The initial work program will include an airborne VTEM survey to expand the EM coverage over the entire mafic-ultramafic intrusive and to test down dip, beyond the depth of the previous EM system. An aircraft is currently being sourced to conduct the survey as soon as possible. An RC drilling program is intended to follow to test new and existing conductors in the second half of the year.

Cassini views the Project as an excellent opportunity to apply its geological expertise and learnings in nickel-copper systems from the West Musgrave Project to an apparently similar mineralised system with only limited modern exploration. Further, the Project is conveniently located adjacent to roads and power, providing development advantages if exploration proves successful.

The Project provides Cassini with further exposure to nickel, copper and cobalt, three critical components of advanced technology and a decarbonised future.

Table 1. Selected significant drill intercepts from the Yarawindah Project.

HOLE ID	East	North	RL	Dip	Azi	EOH (m)	Intersection					
							From (m)	Width (m)	Ni %	Cu %	Co %	PGE g/t
YWRC029	429767	6559823	341	-90	360	57	47	2	0.67	**1.47**	0.07	0.32
YWRC055	429871	6559536	351	-90	360	50	32	7	0.98	0.57	0.07	0.28
						Incl	36	1	**2.31**	0.90	**0.17**	0.39
YWRC058	429558	6559989	331	-90	360	50	35	3	**2.70**	0.80	**0.19**	0.18
YWRC077	430510	6558914	309	-60	249	100	70	2	0.87	0.33	0.07	0.04
YWRC078	430532	6558871	310	-60	249	94	82	1	0.17	1.15	0.02	0.03
YWRC083	430939	6558760	309	-60	249	145	74	7	**1.29**	0.21	0.06	0.43
YWRC085	430977	6558781	310	-60	249	172	91	2	**1.74**	0.29	**0.12**	0.13
YWRC086	430935	6558868	308	-60	249	160	91	1	**2.55**	0.25	**0.15**	0.20
YWRC094	429812	6559851	339	-60	249	112	60	1	0.48	**1.52**	0.03	0.09
							76	3	0.73	0.52	0.04	**0.62**
YWRC095	429834	6559805	341	-60	249	136	82	1	0.57	**1.73**	0.05	0.26
YWRC100	430148	6559861	308	-60	249	148	92	3	0.30	1.11	0.02	**0.96**
							107	3	0.56	0.73	0.03	**0.49**
YWRC101	430125	6559906	306	-60	249	160	92	9	0.30	0.73	0.02	0.32

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About the Company

Cassini Resources Limited (ASX: CZI) is a base and precious metals developer and explorer based in Perth. In April 2014, Cassini acquired its flagship West Musgrave Project (WMP), located in Western Australia. The WMP is a world-class asset which currently has over 1.0 million tonnes of contained nickel and 2.0 million tonnes of contained copper in Resource. The WMP is a new mining camp with three existing nickel and copper sulphide deposits and a number of other significant regional exploration targets already identified. The WMP is the largest undeveloped nickel - copper project in Australia.

In August 2016, Cassini entered into a three-stage $36M Farm-in/Joint Venture Agreement with prominent Australian mining company OZ Minerals Ltd (ASX: OZL). The Joint Venture provides a clear pathway to a decision to mine and potential cash flow for Cassini.

Cassini is progressing its Mt Squires Gold Project, an early stage zinc exploration project in the West Arunta region and has an option to acquire 80% of the Yarawindah Nickel - Copper Project, all located in Western Australia.

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled or reviewed by Mr Greg Miles, who is an employee of the company. Mr Miles is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Miles consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

ANNEXURE 1:

The following Tables are provided to ensure compliance with the JORC Code (2012) edition requirements for the reporting of the Exploration Results at the Yarawindah Brook Project.

Section 1: Sampling Techniques and Data (Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	Previous operators of the Yarawindah Brook Project have sampled using Rotary Air Blast (RAB), Reverse Circulation (RC) and Diamond Drilling (DD). Drilling has been completed over a number of programs and varied spacings. Sampling is assumed to have been via conventional industry standards, i.e. spear sampling for RAB, 1/12 riffle splitting for RC and half core for DD.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Measures taken by the previous operators to ensure sample representivity are unknown.
	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.	Samples were collected at various intervals ranging between 0.1m – 5.0m, although the majority of samples were taken on 1m intervals. Assaying was conducted by recognised assay laboratories, although information about assay procedures have not been provided by the previous operators. Only DD holes have been down-hole surveyed
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic etc) and details (e.g. core diameter, triple of standard tube, depth of diamond tails, face-sampling bit or other type, whether core is orientated and if so, by what method, etc).*	Rotary Air Blast (RAB), 577 holes for 16,945m, Reverse Circulation (RC), 241 holes for 15,266m Diamond Drill (DD) 12 holes for 3,309.1m No information is available regarding core orientation
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Recoveries during the drilling process are unknown
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Unknown if undertaken during drilling process.
	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.	No sample bias has been observed in reports reviewed by Cassini
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.*	Drill core and chip samples have been geologically logged by previous operators. Geological data is currently limited to lithology only. The Company is working to import more geological information from historic reports.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc)	Logging is primarily qualitative.

Criteria	JORC Code explanation	Commentary
	photography.	
	The total length and percentage of the relevant intersections logged.	All drillholes are believed to have been logged in full.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Sampling of care is assumed to have been half core
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples were collected on the rig using riffle splitters. No information is available on sample moisture.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation technique is unknown
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	QA/QC procedures are unknown
	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.	Some close-spaced drilling was conducted to test near surface mineralisation with results showing good continuity.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are assumed appropriate for the rock type and style of mineralisation.
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.*	Information about assay laboratories is yet to be reviewed by Cassini
	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.	Not applicable as information about assay laboratories is yet to be reviewed by Cassini
	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.	Information about QA/QC procedures is yet to be reviewed by Cassini
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Both the Exploration Manager and the Technical Director of Cassini have reviewed the mineralised intercepts.
	The use of twinned holes.	No twinning has been completed
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Previous operators have collected data electronically which has been stored in an Access database. Protocols are yet to be reviewed.
	Discuss any adjustment to assay data.	No adjustments or calibrations were made to any assay data
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	The location of most drill collars has been recorded using GPS. The accuracy of this system is unknown. Only DD holes have been down-hole surveyed utilizing a single-shot camera. .
	Specification of the grid system used.	Historical drilling has used a local grid system with a transformation into MGA_GDA95, Zone

Criteria	JORC Code explanation	Commentary
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	Quality and adequacy of topographic control.	Digital Terrane Models (DTM) have been used to provide topographic control
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Previous drilling has been conducted on various drill spacings. The most recent program and of primary interest for Cassini was conducted on a nominal 50m x 50m local grid.
	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.	The data spacing, distribution and geological understanding of mineralisation controls is not currently sufficient for the estimation of mineral resources.
	Whether sample compositing has been applied.	Not applicable due to nature of results being reported.
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.*	The orientation of sampling is considered appropriate for the current geological interpretation of the mineralisation style
	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.	No orientation based sampling bias has been identified in the data.
Sample security	*The measures taken to ensure sample security.*	No information has been supplied to Cassini.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Cassini's review of previous sampling techniques appears to have been conducted to industry standards.

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 Yarawindah Brook Project consists of a single tenement, E70/4883, owned by Souwest Metals Pty Ltd. Cassini has an option to acquire 80% of Souwest Metals through the expenditure of $250,000 before March 30 2019.
	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 tenement is in good standing and has an existing Aboriginal Heritage Access Agreements in place.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	The project has a long exploration history with initial nickel-copper exploration occurring during the mid-70's.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Yarawindah prospect area is located within the Jimperding Metamorphic Belt which itself forms part of what was earlier referred to as the Western Gneiss Terrane. The Yarawindah igneous complex occurs within the section of the Jimperding Metamorphic Belt hosted in the Lake Grace Terrane, very close to its western boundary with the Boddington Terrane. The Jimperding Metamorphic Belt is up to 70 km wide and is bounded by the Darling Fault to the west and younger Archaean rocks to the east. In the area of the Yarawindah complex, outcrop is poor and all rock types have seen typical Yilgarn deep regolith development, with laterite development common on elevated areas. Regionally, the lithological trend is NW, with moderate to steep dips to the NE. The western portion of the project area is dominated by metasediments and gneiss containing lenses of mafic and ultramafic rocks. It is these lithologies that are the hosts to nickel and copper mineralisation and have been the main targets for exploration.
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.*	Refer to the body of this report for significant intercepts pertaining to this announcement.
	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.	Not applicable, all information is included.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high*	Weighted averages were calculated using parameters of a 0.5% Ni and/or Cu lower cut-off, minimum reporting length of 1m, maximum length

Criteria	JORC Code explanation	Commentary
	grades) and cut-off grades are usually Material and should be stated.	of consecutive internal waste of 2m and the minimum grade of the final composite of 0.5% Ni and/or Cu.
	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.	Short lengths of high grade results use a nominal 1% Ni and/or Cu lower cut-off, no minimum reporting length and 2m maximum internal dilution.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Metal equivalent values are not currently being reported.
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').*	Significant intercepts reported are down-hole lengths as there is insufficient information available to confirm the orientation of mineralisaiton.
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.*	Refer to Figures in body of text.
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.*	All Ni, Cu and Co results are 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.*	All relevant exploration data is shown on figures, in text and Annexure 1.
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.*	During the Option Period, Cassini aims to expand the current surface EM coverage as well as target untested EM conductors with RC drilling to determine the potential for economic resources of nickel, copper and cobalt. All relevant diagrams and inferences have been illustrated in this report.