CASSINI
RESOURCES LIMITED

ASX Release (CZI)
10 September 2018

Further Success At Yappsu Prospect

HIGHLIGHTS

- **Assays confirm an 80m zone of nickel and copper mineralisation in drill hole CZD0079**
- **Complements significant results from CZD0076B**
- **New geological interpretation identifies targets up and down plunge**
- **Preparations for follow-up drilling underway**

Cassini Resources Limited (ASX:CZI) ("Cassini" or the "Company") is pleased to announce a second significant intersection of nickel and copper mineralisation at the Yappsu Prospect within the West Musgrave Project ("WMP" or the "Project") in Western Australia. The program is funded as part of the Earn-in/JV Agreement ("JV" or "the Agreement") with OZ Minerals Limited (ASX:OZL) ("OZ Minerals"). The JV Partners are currently undertaking a Pre-feasibility Study (PFS) on the Nebo-Babel Deposits as well as a regional exploration program.

Drill Hole CZD0079 Results

Assay results for diamond drill hole CZD0079 have confirmed a broad zone of nickel and copper sulphide mineralisation:

1. A narrow disseminated zone of mineralisation returning **5.75m @ 0.28% Ni, 0.63% Cu, 0.01% Co, 0.30g/t PGE and 0.15g/t Au** from 545m.

2. An underlying broad disseminated zone of disseminated mineralisation of **70.25m @ 0.48% Ni, 0.44% Cu, 0.02% Co, 0.34g/t PGE and 0.08g/t Au** from 555.05m.

3. Including a massive sulphide zone of **0.80m @ 4.39% Ni, 0.11% Cu, 0.13% Co, 1.45g/t PGE and 0.02g/t Au** from 555.75m.

Including the barren interval between the two main zones, the diluted intercept is 80.3m @ 0.44% Ni, 0.44% Cu, 0.02% Co, 0.32g/t PGE and 0.09g/t Au, which is the thickest intercept of mineralisation drilled so far (Table 1).

The thickness, grades and continuity of massive sulphide mineralisation, which has been intersected in almost every hole at Yappsu drilled to date, indicates the overall potential for the system to host additional significant accumulations of massive nickel sulphides.

The intercept in CZD0079 complements the earlier result from CZD0076B of 77.8m @ 0.49% Ni, 0.49% Cu, 0.2% Co, 0.29g/t PGE from 545m, including 6.45m @ 1.67% Ni, 1.07% Ni, 0.14% Co and 0.49g/t PGE from 555.75m (Figures 1 & 3). This has confirmed the Company's belief that historical drill holes had not intersected the core of the mineralised system. Mineralisation has continuity over 250m down-plunge and remains completely open at depth and untested by current Downhole Electromagnetic (DHEM) or surface Moving Loop Electromagnetic (MLEM) systems.

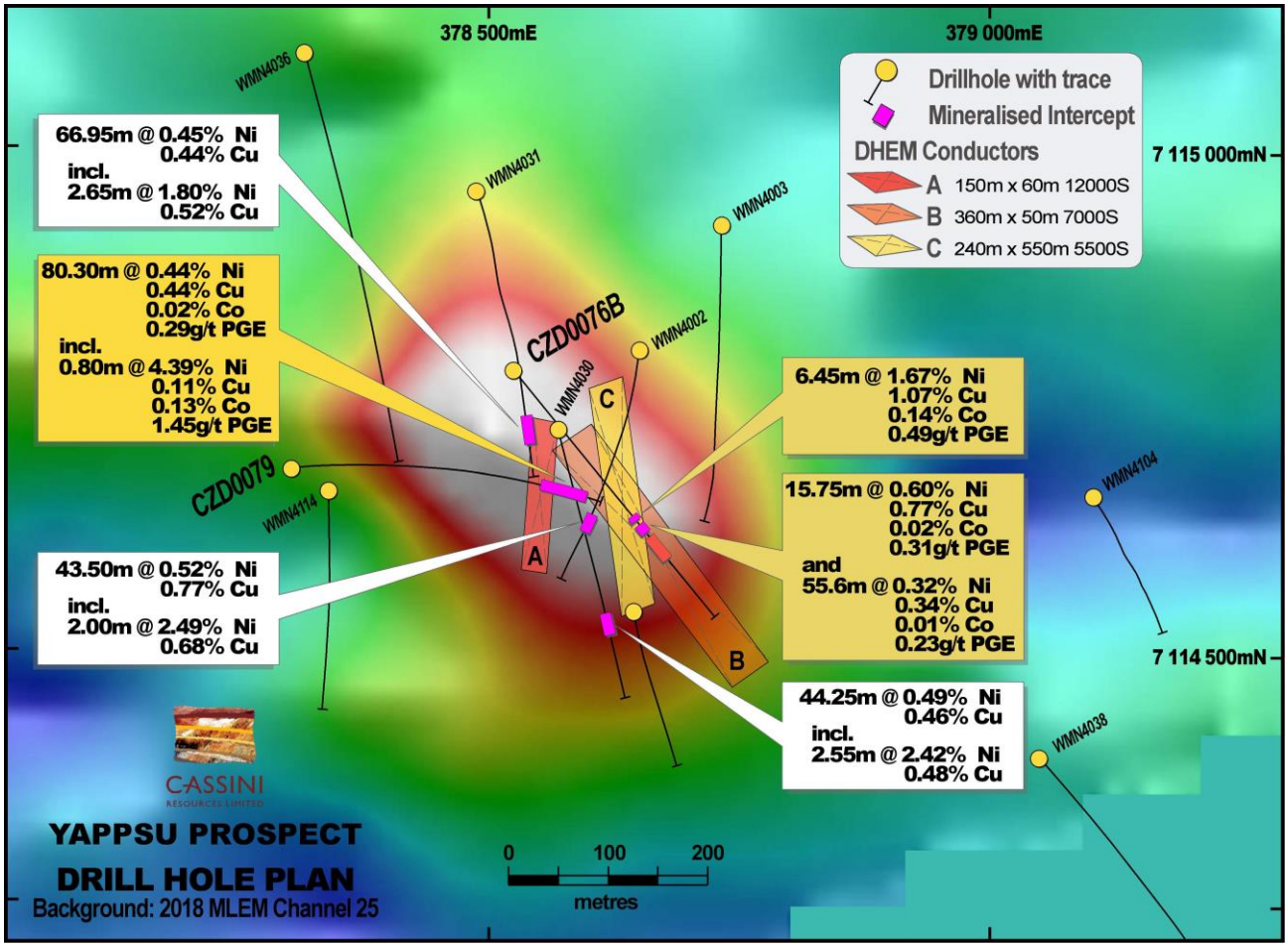

Figure 1. Drill hole plan highlighting results from CZD0076B and CZD0079.

A New Interpretation of Yappsu

The addition of these two new holes has allowed a new interpretation of the host intrusion. Geological modelling suggests that the Yappsu intrusion is a slab-like body, striking east-west and plunging to the west. The massive sulphide mineralisation intersected to date, is interpreted to be hosted within a bulge or flexure of the host intrusion, with the flexure and thus massive sulphide mineralisation striking in a north-westerly direction. This geometry is commonly referred to as “pinch and swell” and is recognised at the Talnakh intrusion in the Norilsk-Talnakh system, where the highest grade and thickest massive sulphide mineralisation is associated with the flexures or thickened zones. At the Eagle Deposit in Michigan, high-grade massive sulphide mineralisation occurs in a flat-laying feeder zone to the upper large sub-vertical intrusion that contains only low-grade disseminated sulphides. This flattening geometry is also recognised at the Nova Mine in the Fraser Range (Figure 3). These styles of deposits are representative of the exploration target at Yappsu.

The currently defined mineralisation probably only represents a small fraction of the entire magmatic system. Both the up-plunge and down-plunge interpreted positions have not been tested by any previous drilling.

Consequently, the revised interpretation presents two immediate targets for follow-up drilling:

1. The up-plunge position could represent a “pinch” position, that could host an economic body of disseminated mineralisation, amenable to open-pit mining given the relatively shallow depth.

2. The down-plunge position is where significant massive sulphides could have accumulated and is the main priority for exploration.

Both of these targets represent significant opportunities for the WMP and are a priority ahead of close-spaced drilling around the known mineralisation of CZD0076B and CZD0079.

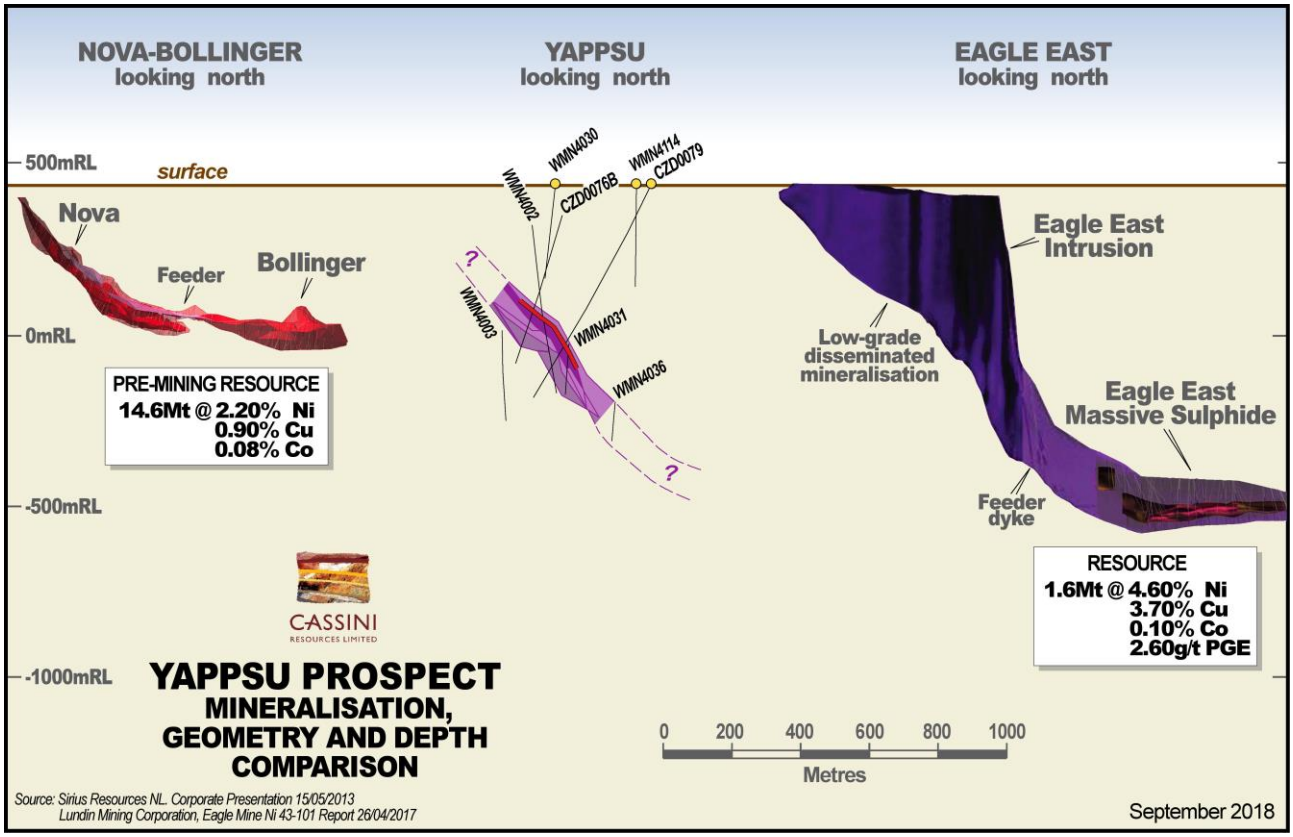

Figure 2. Geometry and depth comparison of the Yappsu Prospect against deposits of a similar style of mineralisation.

Next Steps

Drilling has now re-commenced at Yappsu to identify up-plunge and down-plunge extensions of the host intrusion. A minimum of 3 holes will be drilled with results expected in early Q4. Two up-plunge holes will be drilled to test for near surface mineralisation and to assist with interpretation of the geological model as well as testing for near-surface mineralisation. A single down-plunge hole will test the more likely mineralised position as well as provide a platform for DHEM surveying, beyond the range of previous surveys.

Table 1. CZD0079 Significant drill intercepts.

							INTERSECTIONS						
HOLE ID	East	North	RL	Dip	Azi	EOH (m)	From (m)	Width (m)	Ni %	Cu %	Co %	PGE g/t	Au g/t
CZD0079	378291	7114702	476	-63	93	716.5	545	5.75	0.28	0.63	0.01	0.30	0.15
							555.05	70.25	0.48	0.44	0.02	0.34	0.08
						Incl.	555.75	0.80	4.39	0.11	0.13	1.45	0.02

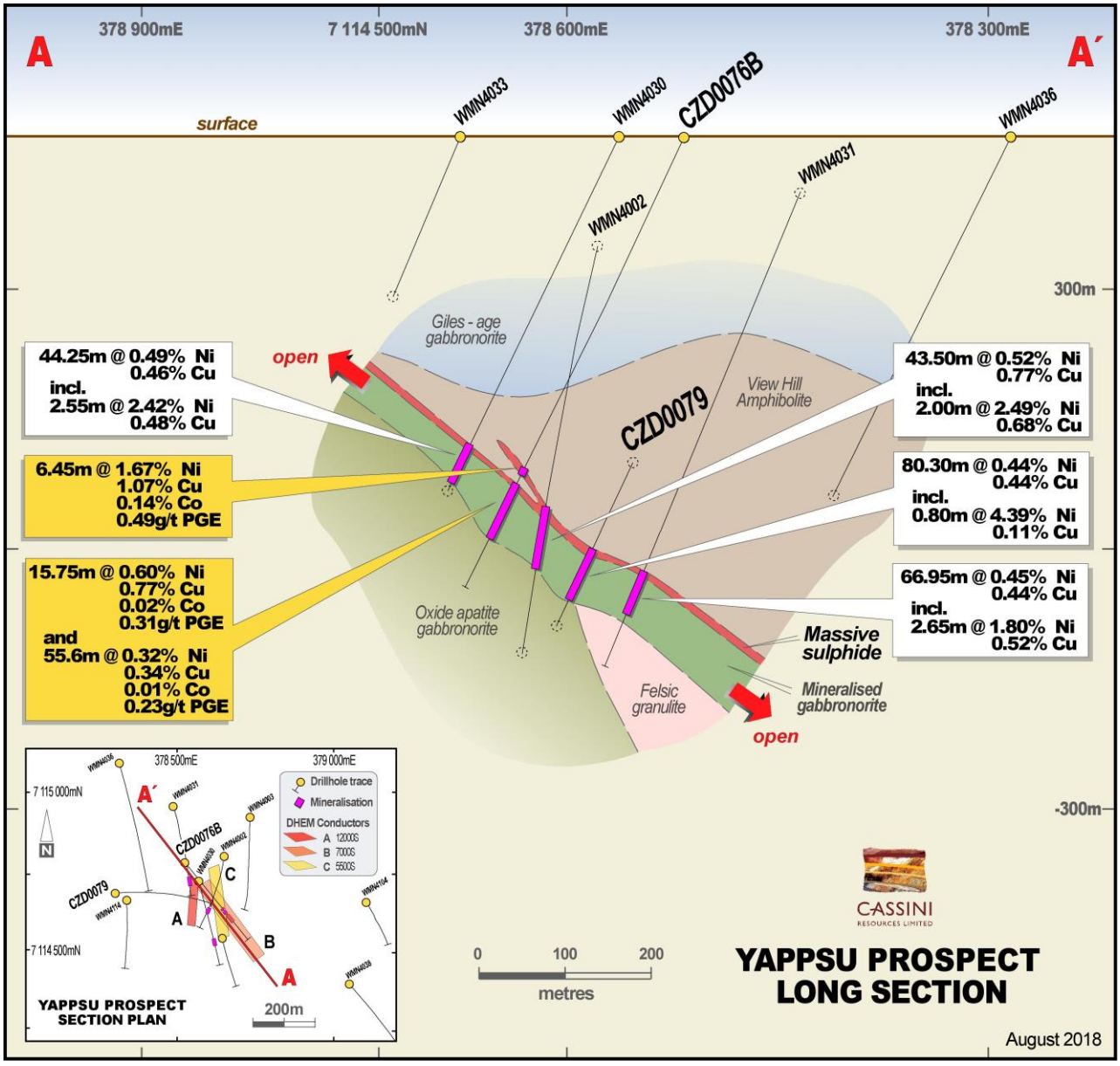

Figure 3. Yappsu section and plan showing approximate intersections in CZD0076B and CZD0079.

About the Yappsu Prospect

The Yappsu Prospect is located 6km east of Nebo. The mineralisation is hosted in a gabbronorite "chonolithic" intrusion which appears similar to the Babel Deposit, albeit with a significant massive sulphide component and an overall higher metal tenor. The upper disseminated zone has metal signatures similar to the Startmeup Shoot at the Babel Deposit. The prospect has been targeted by the JV partners as part of a regional exploration program designed to identify high-grade nickel mineralisation to complement the development of the Nebo-Babel Deposits. The JV Partners have made significant progress in understanding the geology of the prospect, including re-modelling the historical surface and Downhole Electromagnetics (DHEM). A new surface Moving Loop Electromagnetic (MLEM) survey utilising the latest "SQUID" technology supported the targeting of the prospect for massive sulphides (ASX release 5 June 2018).

For further information, please contact:

Richard Bevan
Managing Director

Cassini Resources Limited
Telephone: +61 8 6164 8900
E-mail: admin@cassiniresources.com.au

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 Project 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 also progressing its Mt Squires Gold Project, an early stage zinc exploration project in the West Arunta region and also has an option to acquire 80% of the Yarawindah Nickel - Copper - Cobalt 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.

The Company is not aware of any new information or data, other than that disclosed in this report, that materially affects the information included in this report and that all material assumptions and parameters underpinning Exploration Results, Mineral Resource Estimates and Production Targets as reported in the market announcements dated 3 April 2014, 1 May 2017, 14 November 2017 continue to apply and have not materially changed.

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 Yappsu Prospect.

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.*	Samples comprise half core to lengths no longer than 1m and separated by geological boundaries where appropriate. Portable XRF has been used to confirm the presence of nickel and copper mineralisation but is not considered suitable for public release.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Drill hole locations were surveyed by handheld GPS units. Sampling has been carried out under Cassini protocols and QAQC procedures as per industry best practice.
	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.	Diamond drilling was used to obtain approximately 1m (or smaller where appropriate) samples from which 3 kg is pulverised (total prep) to produce a sub sample for analysis by four acid digest with an ICP/AES or ICP/MS finish (0.25 gram) for base metals or a FA/AAS finish (40 gram) for Au, Pt and Pd.
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).*	Diamond drilling accounts for 100% of the drilling completed by Cassini and comprises PQ3 and HQ3 diameter core samples.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Overall core recoveries are >95% and there has been no significant sample recovery problems
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Samples are routinely checked for recovery..
	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
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.*	All core will be geologically logged and the level of understanding of geological variables increases with the maturity of the prospect. The level of understanding is considered sufficient to include in future resource estimates
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging at the West Musgrave Project records lithology, mineralogy, mineralisation, weathering, colour and other relevant features of the samples. Logging of core is both qualitative (e.g. colour) and quantitative (e.g. mineral percentages).
	The total length and percentage of the relevant intersections logged.	The drillhole will be logged in full.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Half core will be sampled.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Not applicable, as core was taken.
	For all sample types, the nature, quality and	The sample preparation of diamond samples at

Criteria	JORC Code explanation	Commentary
	appropriateness of the sample preparation technique.	Yappsu follows industry best practice in sample preparation involving oven drying, followed by pulverisation of the entire sample (total prep) using Essa LM5 grinding mills to a grind size of 90% passing 75 micron
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Field QC procedures involve the use of certified reference material (CRM) as assay standards and blanks along with field duplicates. The insertion rate of these will average 1:15 with an increased rate in mineralised zones
	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.	Quarter core duplicate sampling will be 1-2% of total sampling
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate for the rock type, style of mineralisation (massive sulphides), the thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements within the West Musgrave Project.
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.*	The analytical techniques used fused bead XRF for base metals and all other major and trace elements of interest. Gold, Pt and Pd were determined by FA/AAS finish (40 gram).
	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.	Hand held assay devices have not been reported.
	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.	Sample preparation for fineness were carried by the laboratory as part of their internal procedures to ensure the grind size of 90% passing 75 micron was being attained. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in-house procedures. Certified reference materials, having a good range of values, are inserted blindly and randomly. Repeat or duplicate analysis for samples will be reviewed.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Core has been viewed by contract and Cassini geology staff.
	The use of twinned holes.	The reported drill hole has not been twinned.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data collected for the West Musgrave Project using a set of standard Field Marshal templates on laptop computers using lookup codes. The information was sent to Geobase Australia for validation and compilation into a SQL database server.
	Discuss any adjustment to assay data.	No assay data has been adjusted
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.*	Reported holes have been located with a Garmin hand-held GPS and are assumed to be accurate to ±5m. This is considered appropriate for exploration drill holes. Downhole surveys were completed every 5m using north-seeking gyroscopes after hole completion. Stated accuracy is ± 0.25° in azimuth and ± 0.05° in inclination..
	Specification of the grid system used.	The grid system for the West Musgraves Project is MGA_GDA95, Zone 52.

Criteria	JORC Code explanation	Commentary
	Quality and adequacy of topographic control.	The tenement package exhibits subdued relief with undulating hills and topographic representation is sufficiently controlled.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The holes drilled were for exploration purposes and have not been drilled on a grid pattern. Drill hole spacing is considered appropriate for exploration purposes.
	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.	Data continuity is not sufficient at the current time to estimate resources
	Whether sample compositing has been applied.	No compositing was applied.
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.*	CZD0076B is drilled at 138 degrees at -65° dip to intersect the conductors at a close to perpendicular relationship for the bulk of the targets. The orientation of sampling is considered to be unbiased. CZD0079 has been drilled at -62° dip to 095 to intersect the target conductor in as close to a perpendicular relationship as possible
	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 orientation of drilling and key mineralised structure is not considered to have introduced sampling bias.
Sample security	*The measures taken to ensure sample security.*	Sample chain of custody is managed by Cassini. Samples for the West Musgraves Project are stored on site and delivered to Perth by recognised freight service and then to the assay laboratory by a Perth-based courier service. Whilst in storage the samples are kept in a locked yard.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No reviews have been carried out to date.

Section 2: Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section)

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td>Mineral tenement and land tenure status</td><td>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.</td><td>Yappsu is located within E69/2201. Through wholly owned subsidiary Wirraway Metals and Mining Pty Ltd, Cassini holds 100% of the leases comprising the West Musgrave Project (granted licences M69/0072, M69/0073, M69/0074, M69/0075, E69/1505, E69/1530, E69/2201, E69/2313, E69/3137, E69/3163, E69/3164, E69/3165, E69/3168, E69/3169) over which the previous operator retains a 2% NSR. The tenement sits within Crown Reserve 17614.</td></tr>
<tr><td></td><td>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.</td><td>All tenements are in good standing and have an existing Aboriginal Heritage Access Agreements in place. No Mining Agreement has been negotiated.</td></tr>
<tr><td>Exploration done by other parties</td><td>Acknowledgment and appraisal of exploration by other parties.</td><td>Previous exploration has been conducted by BHP Billiton and WMC. The work completed by BHP Billiton and WMC is considered by Cassini to be of a high standard.</td></tr>
<tr><td>Geology</td><td>Deposit type, geological setting and style of mineralisation.</td><td>The project lies within the West Musgrave Province of Western Australia, which is part of an extensive Mesoproterozoic orogenic belt. The Nebo-Babel and Succoth deposits lie within mafic intrusions of the Giles Complex (1068Ma) that has intruded into amphibolite facies orthogneiss country rock. Mineralisation is hosted within tubular chonolithic gabbronorite bodies and are expressed primarily as broad zones of disseminated sulphide and comagmatic or potentially remobilised accumulations of stronger mineralised, matrix to massive sulphides.</td></tr>
<tr><td rowspan="2">Drill hole Information</td><td>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.</td><td>Collar information for CZD0076B is published in the body of the report.

CZD0079 collar information:
<table><tr><th>East</th><th>North</th><th>RL</th><th>Azi</th><th>Dip</th></tr><tr><td>378291</td><td>7114702</td><td>476</td><td>095</td><td>-62</td></tr></table>
The hole is progress with a proposed depth of 750m</td></tr>
<tr><td>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.</td><td>Not applicable, all information is included.</td></tr>
<tr><td>Data aggregation methods</td><td>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.</td><td>Weighted averages for Yappsu mineralisation were calculated using parameters of a 0.25% Ni or Cu lower cut-off, no minimum reporting length, 6m maximum length of consecutive internal waste and the minimum grade for the final composite of 0.25% Ni or Cu.</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
	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 either a nominal 1% Ni or Cu lower cut-off or a geological boundary such as a massive sulphide interval, no minimum reporting length and 2m maximum interval dilution and the minimum grade of the final composite of 1% Ni or Cu
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Metal equivalent values are not 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').*	Mineralisation at Yappsu is a moderately, north-westerly plunging body of variably mineralised mafic rock. Mineralisation is generally intersected with approximate true-width down-hole lengths.
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 results have been 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.*	Cassini and its partner OZ Minerals are currently undertaking advanced scoping study work at the West Musgrave Project. Further resource definition drilling is likely to be conducted during a pre-feasibility study in conjunction with regional exploration programs including reconnaissance drilling and geophysics. All relevant diagrams and inferences have been illustrated in this report.